

Collaborative Management to Achieve Depression Treatment Guidelines

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Two models that integrate the psychiatrist into treatment of depression in primary care have been evaluated in randomized controlled trials. In the psychiatrist/primary care model, a psychiatrist alternated visits with a primary care physician to assist in the education and pharmacologic treatment of the patient. In the psychiatrist/psychologist team model, the psychiatrist worked with a team of psychologists to improve adherence to and effectiveness of antidepressant treatment, with psychologists also providing brief behavioral treatment in the primary care clinic. Findings with the psychiatry/primary care model are reported. It was found that the collaborative model was associated with improved adherence to treatment, increased patient satisfaction with depression care, and improved depression outcome compared with usual care by primary care physicians alone. Similar results were found in the study of the psychiatrist/psychologist collaborative care model. The success of these models indicates the appropriateness of a novel role for the psychiatrist and psychologist, i.e., that of collaboration with primary care physicians in care of the depressed patient in the primary care setting.

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There are proven efficacious treatments for major depression, but few primary care patients with depression currently receive them.^{1,2} Only 30% to 40% of primary care patients with major depression receive antidepressant treatment as recommended by the Agency for Health Care Policy and Research (AHCPR) guidelines for diagnosis and treatment of major depression in primary care.¹⁻⁵ Fewer than 10% of patients in this setting receive specific psychotherapies (e.g., cognitive, behavioral, and interpersonal therapies) known to be effective in treating depression.⁶

Numerous factors contribute to the inadequacy of treatment in primary care.^{7,8} There is a need for patient education regarding depression; greater public awareness of the nature of the illness would facilitate diagnosis by increasing the proportion of patients who would present with a

psychosocial complaint or at least admit to a psychosocial component of somatic complaints.^{9,10} Even when depression is recognized in primary care and appropriate treatment is recommended, adherence to treatment is a major problem.^{3,5} Patient follow-up and support are suboptimal, including inadequate follow-up during the critical initial stages of treatment.^{5,6,10} For example, although the AHCPR guidelines suggest follow-up every 2 weeks during the first month of treatment,⁸ a study in two large primary care clinics of a health maintenance organization (HMO) primary care network in Seattle showed that the average frequency of follow-up for physicians who diagnose depression was twice in 8 weeks.⁶ Further hindering effective treatment is the absence of close collaboration among psychiatrists, psychologists, and primary care physicians. Even when patients are referred to other clinics for speciality care, they frequently fail to utilize the referral; it has been estimated that only half of the referred patients make at least one visit to the clinic to which they are referred.^{11,12} In addition, there is a lack of availability in the community of specific psychotherapies that have been shown to be effective in depression.

In an attempt to address some of the factors hindering effective treatment in the primary care setting, we have developed two models of collaborative care designed to improve quality of care in primary care^{6,13}: the psychiatry/primary care model and the psychiatrist/psychologist team model. These models have been investigated in randomized trials in a primary care setting; the trials have shown

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the models improve adherence to antidepressant medication regimens, increase satisfaction with care of depression, and improve depressive outcomes compared with usual primary care. In this article, we describe the models and present findings of one of these investigations.

COLLABORATIVE CARE MODELS

The collaborative care programs were each evaluated in a single large HMO primary care clinic. The primary care physicians in the clinic were board-certified family physicians.

Psychiatry/Primary Care Model

The psychiatry/primary care physician model is a multimodal program involving interventions at the patient, physician, and system/structure levels.⁶ In our study of the model, intervention patients were given a 20-minute educational videotape for viewing at home with their spouse or partner; the videotape could also be viewed in the clinic. The videotape presented information on the biology of depression, the mechanisms of antidepressant medication, and the expected time frame and nature of response. Patients were instructed to write out questions about depression and its treatment after watching the videotape and to present the physician with these questions at their next meeting. The amount of time spent by the primary care physician with the patient at the first visit after videotape viewing was increased beyond the average physician visit time to permit detailed discussion of these questions and time for the physician to provide additional education and support. Adherence, side effects, and outcomes were closely monitored after treatment was initiated.

Primary care physicians received a half-day training session covering the AHCPR depression guidelines. Case-by-case feedback from a psychiatric specialist was provided for these physicians, who also attended didactic sessions and case conferences on depression every 2 months.

Visits were more frequent and lasted longer than usual clinic visits. Intervention patients had two primary care physician visits and two psychiatrist visits at the same clinic during the first 8 weeks, with the visits occurring at 1- to 2-week intervals on an alternating basis. The psychiatrist evaluated the patient's progress while taking the medication started by the primary care physician and communicated recommended changes because of treatment resistance or side effects to the primary care physician; after agreeing upon a treatment strategy, one or the other would institute the change in treatment. Automated printouts on refills of antidepressant medication were reviewed by the study psychiatrists on a monthly basis to monitor patient adherence to the prescribed regimen; patients who did not appear to be adhering to the regimen were contacted by the primary care physician or the physician's nurse to discuss the problems with adherence.

Psychiatrist/Psychologist Team Model

In the psychiatrist/psychologist team model, the psychologist had primary responsibility for treatment and education, and the psychiatrist provided supervision, particularly of medication.¹³ The psychologist was integrated into the primary care setting, seeing the patient for approximately four to six visits in the clinic; the psychologist provided verbal education regarding the biology, psychology, and treatment of depression, as well as used the videotape described above. The psychologist also monitored adherence to treatment, side effects, depressive symptoms (with the Beck Depression Inventory),¹⁴ and any maladaptive cognitions regarding the medication (e.g., fear of addiction). The psychologist communicated with the primary care physician about the patient's symptoms, medication adherence, and side effects. The psychologists and psychiatrists met weekly to discuss cases. If the psychiatrist felt that a change in treatment was warranted because of treatment resistance or side effects, the changes in medication or dosage would be discussed with the psychologist and then communicated to the primary care physician. The psychologists also provided brief cognitive-behavioral treatment over the four to six sessions in the primary care clinic; the first four weekly sessions focussed on increasing the amount of the patient's positive activities and reducing negative thought patterns, and the patient was offered two additional sessions to work on a particular behavioral skill (e.g., assertiveness training).

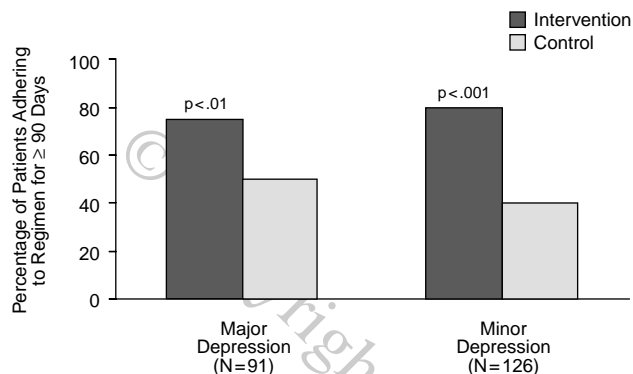
STUDY OF PSYCHIATRY/PRIMARY CARE COLLABORATIVE MODEL

The goals of both types of treatment programs were to improve adherence to antidepressant medication, satisfaction with care of depression, and outcomes of depression. Both programs also attempted to motivate patients to collaborate in their depression treatment. The outcome measures used in the studies of these models were (1) adherence to an adequate dosage of antidepressant medication based on the AHCPR guidelines^{7,8} at ≥ 30 days and ≥ 90 days, with adherence determined by automated reports on patient refilling of prescriptions; (2) satisfaction with care of depression, as subjectively reported; (3) satisfaction with antidepressant medication, as subjectively reported; and (4) depressive outcome measured by the Rush Inventory for Depressive Symptomatology and the 20-item Hopkins Symptom Checklist (SCL).^{15,16}

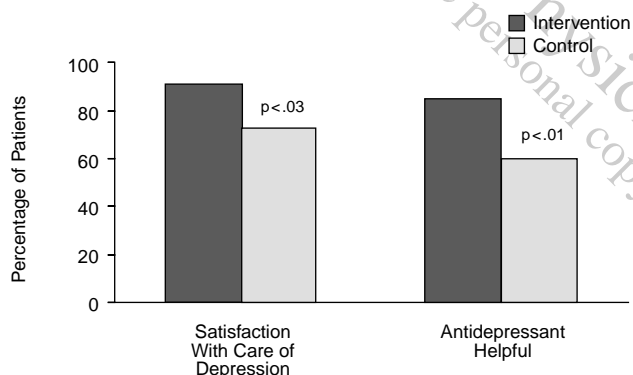
In the studies of both models, any patient for whom major depression was suspected by the primary care physician and who was willing to have an antidepressant medication prescribed was referred for evaluation by a research assistant to determine eligibility for enrollment. Informed consent was obtained and a baseline assessment performed. Patients were randomly assigned to either the intervention group receiving care through a collaborative

Figure 1. Adequate Antidepressant Dosage and Satisfaction With Depression Treatment in Patients With Major or Minor Depression*

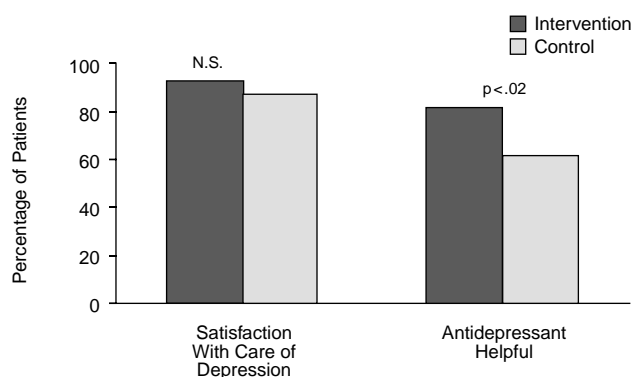
1A. Proportion of Intervention and Control Patients With Major or Minor Depression Receiving an Adequate Antidepressant Dosage at ≥ 90 Days



1B. Proportion of Intervention and Control Patients With Major Depression (N=91) Reporting Satisfaction With Depression Care and Proportion Reporting the Antidepressant Treatment as Helpful



1C. Proportion of Intervention and Control Patients With Minor Depression (N=126) Reporting Satisfaction With Depression Care and Proportion Reporting the Antidepressant Treatment as Helpful



*From reference 6, with permission.

program or the control group receiving usual care from the primary care physician. Patients in both groups were followed by telephone interview at 1, 4, and 7 months by a survey team that was blinded to intervention status.

The results reported here are for the study of the psychiatry/primary care collaborative model.⁶ Results of the psychologist/psychiatrist primary care team model study closely resembled those in this study and were reported elsewhere.¹³ A total of 217 patients were randomly assigned to one of the two treatment groups, and an average of 8 patients in each group were referred from each primary care physician. Results were stratified according to patient diagnosis of major depression or minor depression; the latter was defined as the presence of two to four depressive symptoms for at least 2 weeks. Figure 1 shows results for treatment adherence, satisfaction with care, and depressive outcome. In patients with major depression, 75% of patients in the intervention group were receiving an adequate dosage of antidepressant medication at ≥ 90 days, compared with 50% of the control group patients ($p < .01$); among those with minor depression, the proportions of patients adhering to adequate dosages for ≥ 90 days were 80% and 40%, respectively ($p < .001$). Significant differences were observed between intervention and control group patients with major depression with regard to both treatment satisfaction measures; satisfaction with care of depression was reported by 93% of intervention group patients and 75% of control group patients ($p < .03$), and satisfaction with antidepressant medication was reported by 85% and 60%, respectively ($p < .01$). In patients with minor depression, there was no significant difference between the intervention group and the control group with regard to satisfaction with care (94% and 90% of patients, respectively), although a significantly greater proportion of intervention group patients reported satisfaction with antidepressant treatment (82% vs. 61%, $p < .02$). Significant improvement in depressive symptoms was defined as a 50% or greater reduction in SCL score at 4 months.¹⁷ This level of improvement occurred in 75% of intervention group patients and 44% of control group patients—a significant difference ($p < .01$). Results obtained by using the Rush Inventory for Depressive Symptomatology were quite similar to those obtained by using the SCL. No significant difference in severity reduction was observed between intervention group patients and control group patients with minor depression, and improvement occurred in 60% and 68%, respectively.

The study findings indicate that the collaborative program was associated with significant improvements in treatment adherence, patient satisfaction with care and antidepressant medication, and depression outcome in patients with major depression. In patients with minor depression, the collaborative intervention was associated with significant improvements in treatment adherence

and satisfaction with antidepressant medication, but without significant improvement in overall satisfaction with care or in depressive outcome. Similar improvements in intervention patients with major depression were seen in our study of the psychiatrist/psychologist team model of care.¹³

Cost-effectiveness of the collaborative care intervention and of usual care in treatment of major depression was assessed by dividing cost of intervention by the proportion of patients successfully treated, as defined by the 50% reduction in SCL scores at 4 months.¹⁷ The average cost of depression treatment per patient for 1 year in the collaborative intervention group was \$1337, whereas that in the usual care group was \$850. Successful outcome was achieved in 74% of the intervention group patients and in 44% of the control group patients. Cost per successful outcome was calculated by dividing the mean cost of depression treatment per patient by the proportion of successfully treated patients. Costs per successful outcome were \$1783 (\$1337/.744) in the collaborative intervention group and \$1940 (\$850/.438) in the control group, suggesting that care was more cost-effective in the collaborative intervention group for patients with major depression.

CONCLUSION

Overall, we believe that the findings in this study and in our similar study of the psychiatrist/psychologist primary care approach indicate that the collaborative models of care are successful in defining a new role for the psychiatrist and psychologist in supporting and enhancing the role of the primary care physician rather than supplementing or supplanting it. Results achieved with these models suggest that integration of psychiatrists and psychologists into primary care treatment of major depression in a structured program is associated with significantly improved outcomes and greater cost-effectiveness of treatment. That consistent differences favoring collaborative treatment in patients with minor depression were not observed suggests that such patients might be effectively managed by primary

care physicians alone during the initial 2 to 3 months of treatment, with only those patients with persistent symptoms requiring referral to the psychiatrist or psychologist.

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