

## A Primary Care–Based Depression Management Program

Katzelnick DJ, Simon GE, Pearson SD, Manning WG, Helstad CP, Henk JH, et al. Randomized trial of a depression management program in high utilizers of medical care. *Arch Fam Med* 2000;9:345–51.

### Study Overview

**Objective.** To test whether a multicomponent, primary care– and guidelines-based management system for depression will increase the number of patients receiving care, improve their depression-related outcomes, and decrease health care utilization.

**Design.** Randomized, controlled clinical trial.

**Setting and participants.** Patients aged 25 to 63 years enrolled in 3 large prepaid health maintenance organizations (HMOs) in the Midwest, Northwest, and New England regions. Patients were receiving care at 1 of 163 primary care practices, had continuous health plan enrollment for the previous 2 years, and had ambulatory visit counts above the 85th percentile for both of the previous 2 years. Ambulatory visits included primary care, medical specialty, and walk-in clinic visits but not emergency room, mental health provider, routine obstetric, physical therapy/occupational therapy, optometry, radiographic/diagnostic, home health, or chiropractic visits; telephone contacts; or allergy injections. Exclusion criteria were recent treatment for alcohol or other substance abuse, past treatment for schizophrenia or bipolar disorder, life-threatening medical disorders, active treatment for depression, contraindications to taking an antidepressant, receiving treatment by a psychiatrist within the past 4 months, planned or current pregnancy or breastfeeding, and intent to leave the HMO.

Of 1465 patients who screened positive by telephone interview for current major depression or major depression in partial remission, 1295 agreed to complete the second telephone interview to assess the severity of their depression. 410 patients scored high enough on the Hamilton Depression (Ham-D) Rating Scale to be eligible to participate. 407 agreed to participate. Approximately 93% of the participants completed the 12-month assessment.

**Intervention.** The control group ( $n = 189$ ) was assigned to usual care. These patients were advised of their results on the screening tools and were told that care would be available through their primary care physician. The intervention group ( $n = 218$ ) was assigned to the Depression Management Program (DMP), which included physician education, patient education, antidepressant treatment, and treatment

coordination. The physicians attended a 2-hour training program on the initial assessment of depression and the initiation of pharmacotherapy. They were also told of 1 or 2 psychiatrists who were available as consultants. Primary care physicians were advised to follow an algorithm that started with sertraline hydrochloride at 50 mg/day (halved if patients had panic attacks or weighed less than 45 kg). Doses were to be increased at 4 weeks if the patient did not improve. The maximum recommended dose was 200 mg/day. For patients who did not respond to or tolerate sertraline, the algorithm required starting nortriptyline at 25 mg/day to be titrated to 100 mg/day as needed.

Patients received a booklet designed for this study prior to their next primary care visit as well as videotaped educational materials designed to increase acceptance of depression treatment. Some patients also received the RHYTHMS [1] depression education program at their first visit to increase antidepressant adherence, if deemed appropriate.

Primary care appointments were prescheduled at approximately 1, 3, 6, and 10 weeks then every 10 weeks for an unspecified length of time. Treatment coordinators reviewed prescription refills and office visits and contacted patients by phone at 2 and 10 weeks (and additionally at 18, 30, and 42 weeks if needed). After each monitoring contact, the coordinators wrote to the physicians if the patient was doing well and called the physician if the patient was not doing well. Physicians were not obligated to respond to written contacts. Physicians were encouraged to refer to a psychiatrist patients who did not respond by 10 weeks and complicated patients (eg, major psychiatric comorbidity, past treatment failures).

**Main outcome measures.** The Ham-D Rating Scale was used to identify “responders” (Ham-D score reduced by at least 50%) and patients in “remission” (Ham-D score  $< 7$ ). The patient’s perspective of her or his change from enrollment in the study was assessed using a patient-rated 7-point “global improvement” scale. Functional status was measured using the Medical Outcomes Study 20-item short form. Utilization was measured in units of outpatient visits (defined similarly to the inclusion criteria measure) and hospital admissions. Researchers analyzed data using an intention-to-treat model.

**Main results.** DMP patients showed significantly more improvement in all of the clinical and functional outcomes at all assessments compared with control patients. At 12 months, 53.2% of DMP patients responded (control = 32.8%), 57.6% rated themselves as “much” or “very much” improved (control = 33.7%), and 45.3% were in remission (control = 27.7%). In the control group, 23.2% of patients had a worse Ham-D score at 12 months versus 12.8% of the DMP patients. The number needed to treat to accomplish any of the main clinical outcomes was 5.

The mean number of visits increased in the DMP group by 1.5 (18.4 to 19.9 visits) but decreased by 2.0 (19.4 to 17.4 visits) in the control group ( $P = 0.02$ ) from the year prior to the study to the study year. There was a similar non-significant trend for inpatient admissions.

### Conclusion

A multicomponent depression management program based on guidelines and centered in primary care clinics can improve the quality of care for a group of high utilizers in managed care organizations. Clinical and functional outcomes were improved but the effect on utilization, particularly in the long term, cannot be determined by this study.

### Commentary

The design of this well-done study may have biased the results against a strong effect in favor of the DMP. That the screening portion of the study could have had some mild effect on quality of care makes the results more striking. The principle question the study leaves unanswered is one of cost-effectiveness. There is not enough utilization data, nor a long enough follow-up period, to determine what the

impact on utilization would be with this program. Also, the article did not address the expense of implementing and maintaining the DMP. Although the study was based in primary care, implementation at the study centers and elsewhere requires hiring staff to work as treatment coordinators. This study used coordinators with bachelor's level or higher education and experience in clinical mental health. Other cost items associated with implementing the program include physician training and educational materials such as videocassettes.

Nonetheless, this study contributes to the growing literature on effective interventions for improving outcomes for patients with depression. Alongside a much larger study that showed a smaller but similar effect using 2 different quality improvement programs [2], there are now successful models from which to develop primary care-based programs that will likely benefit patients in a variety of managed care settings.

### Applications for Clinical Practice

Health care administrators should begin to consider implementing specific programs to improve care for patients with depression. Given the prevalence of this disorder, there is an opportunity to benefit a substantial part of the population.

### References

1. The RHYTHMS patient compliance program. New York: Carlson Health-Care Publications; 1995.
2. Wells KB, Sherbourne C, Schoenbaum M, Duan N, Meredith L, Unutzer J, et al. Impact of disseminating quality improvement programs for depression in managed primary care: a randomized controlled trial. *JAMA* 2000;283:212-20.

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