Organized Care for Depression Improves Outcomes and Reduces Costs

Reviewed by Michael Pignone, MD, MPH

STUDY

Simon GE, Katon WJ, Lin EH, Rutter C, Manning WG, Von Korff M, Ciechanowski P, Ludman EJ, Young BA: Cost-effectiveness of systematic depression treatment among people with diabetes mellitus. *Arch Gen Psychiatry* 64:65–72, 2007

SUMMARY

Design. A randomized controlled trial and economic analysis.

Subjects. Three hundred twenty-nine patients with diabetes and a current depressive disorder.

Methods. Researchers identified from computer records 9,063 patients with diabetes from nine primary care clinics affiliated with Group Health Cooperative and mailed them a survey that included the nine-item Patient Health Questionnaire (PHQ-9), a well-validated depression screening instrument. Those scoring 10 or more on the PHQ-9 on two separate occasions and who were found to have moderate or greater symptoms with the Hopkins Symptom Check List (SCL) were invited to an in-person baseline visit. Three hundred twenty-nine patients attended and were randomized to a nurse-delivered multi-component depression management program or usual care.

The program used a stepped-care approach with incorporation of patient preferences for treatment (antidepressant medication, structured psychotherapy, or both). Follow-up was delivered with a combination of in-person and phone-based visits. Outcomes were measured by blinded telephone-based assessments at 3, 6, 12, and 24 months. The main outcome was depression-free days, which integrates depression symptom scores over time and was based on the SCL scale described above.

Health service use and costs were estimated using the health plan's computerized cost records, including 30% overhead. In-person nurse visits were estimated to cost $79 and telephone follow-up $31. Value of the program was assessed with cost-effectiveness measures and with net benefit analysis using patient estimates of the value of a depression-free day.

Results. Intervention patients had a mean of 61 more depression-free days during 24 months (95% confidence interval 11 to 82) and had outpatient health care costs that were a mean of $314 lower than the usual care provided control subjects. The economic benefit was larger (mean $952 per patient treated) when using a value of a depression-free day of $10.

Conclusions. Systematic depression treatment improved clinical outcomes and reduced health care costs for patients with diabetes and depression.

COMMENTARY

Depression is common in patients with diabetes and leads to reduced quality of life, increased absenteeism from work, and increased health care costs.[1] Identification and treatment of depression with either pharmacotherapy, psychotherapy, or both improves clinical outcomes and reduces health care utilization.

Despite the well-proven benefits of identifying and treating depression, care for depressed patients remains suboptimal. Rates of identification of depression are often < 50%, and those identified with major depression often do not receive sufficient treatment or follow-up.[2] Organized programs of care for depression have been shown to improve outcomes and reduce health care utilization, particularly for high utilizers of care in primary care settings.[3]

Because of their high burden of illness, patients with diabetes and depression represent a good target for a program of organized care. Simon et al. at Group Health studied the effect of such a program and found that, during 24 months, the program improved clinical outcomes as measured by depression-free days and reduced outpatient health care costs, even when incorporating the costs of the program.[4] Health care spending was reduced more in the second year than in the first, indicating that some of the benefits of such a program are accrued after start-up. Other investigators have reached similar results and have even shown decreased risk of mortality with organized care.[5,6]

Because of the potential for immediate improvements in symptoms and quality of life, and the subsequent benefits in terms of health care utilization and health care costs, organized depression care programs should be a high priority for providers and payers. To date, however, systematic care for depression has not been a high priority for patients with diabetes. Greater attention has been focused on other aspects of care, including services aimed at reductions of macrovascular

and microvascular complications. Given the high burden of morbidity associated with depression and the effectiveness of treatment, depression care should probably be a higher priority than many other diabetes care services.

Several barriers have made it difficult to implement high-quality care for patients with diabetes and depression. First, depression remains a stigmatized condition for many patients and providers; providers and patients may consciously or subconsciously avoid addressing it. Second, providers for patients with diabetes may not feel they have sufficient skills for identifying and treating depression, and they may be concerned about how to address difficult issues, such as suicidal ideation. Referral for behavioral therapy may be difficult to arrange and may not be covered by patients' insurance plans. Finally, integrating depression care into the work flow of a primary care practice can be difficult. Deciding who will identify and track patients with depression within the practice, how follow-up will be arranged and structured, and when referral for psychiatric consultation is warranted can be challenging.

Although the program developed by Simon et al. provides useful guidance for how to address some of these issues, the fact that it was conducted within an integrated health care system makes it difficult to generalize to other settings that have multiple payers. Most primary care practices serve patients from a variety of insurers, each of whom may have different policies and few of whom pay for phone-based follow-up or support the nonphysician staff who are required for cost-effective care. If we are to successfully disseminate this model of care, we will need to change insurer reimbursement policies to support phone care and nonphysician care.

REFERENCES

[1]Ali S, Stone MA, Peters JL, Davies MJ, Khunti K: The prevalence of co-morbid depression in adults with type 2 diabetes: a systematic review and meta-analysis. *Diabet Med* 23:1165–1173, 2006

[2]Pignone MP, Gaynes BN, Rushton JL, Burchell CM, Orleans CT, Mulrow CD, Lohr KN: Screening for depression in adults: a summary of the evidence for the U.S. Preventive Services Task Force. *Ann Intern Med* 136:765–776, 2002

[3]Williams JW Jr, Gerrity M, Holsinger T, Dobscha S, Gaynes B, Dietrich A: Systematic review of multifaceted interventions to improve depression care. *Gen Hosp Psychiatry* 29:91–116, 2007

[4]Simon GE, Katon WJ, Lin EH, Rutter C, Manning WG, Von Korff M, Ciechanowski P, Ludman EJ, Young BA: Cost-effectiveness of systematic depression treatment among people with diabetes mellitus. *Arch Gen Psychiatry* 64:65–72, 2007

[5]Katon W, Unutzer J, Fan MY, Williams JW Jr, Schoenbaum M, Lin EH, Hunkeler EM: Cost-effectiveness and net benefit of enhanced treatment of depression for older adults with diabetes and depression. *Diabetes Care* 29:265–270, 2006

[6]Bogner HR, Morales KH, Post EP, Bruce ML: Diabetes, depression, and death: a randomized controlled trial of a depression treatment program for older adults based in primary care. *Diabetes Care* 2007 Aug 23 [Epub ahead of print]

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