Integrated Care for Depression in Diabetes

T he irrelevancy of the age-old, artificial dichotomy between physical and mental health is painfully obvious in the longstanding failure to address the association between diabetes and major depression. “We have known for years that these conditions overlap, yet their combination continues to lead to worse physical and psychiatric outcomes,” according to David Osborn, Ph.D., senior lecturer of epidemiology and community psychiatry at University College London.

The Centers for Disease Control and Prevention estimates that nearly 24 million people in the United States alone have diabetes. Considering this increasing prevalence of diabetes and recent evidence indicating a significantly poorer prognosis for diabetic adults with comorbid depression, “the need to develop and evaluate coherent services that address both the mental and physical needs of these patients cannot be overstated,” he said.

Patients with type 2 diabetes mellitus are at least twice as likely as their non-diabetic peers to experience depressive symptoms, and the aggregated lifetime prevalence of major depression in this population might be as high as 27%, according to a 2001 meta-analysis (Diabetes 2001;24:1069-78). In particular, individuals with poorly controlled diabetes are more likely to have depression, possibly because of the association between depression and problems with medication and diet adherence (J. Diabetes Complications 2005;19:113-22).

Several studies have linked depression with an increased risk of developing diabetes-related complications, as well as increased mortality. In a recent prospective investigation into the association between depression and all-cause mortality in a cohort of 4,384 patients with type 2 diabetes who received care at one of nine Group Health primary care clinics between 2000 and 2002, annually through 2007, the researchers reviewed the patients’ medical records and the death registry files of Washington state to ascertain the causes of death. After adjusting for demographic characteristics for the 428 patients who died, they found that major depression was significantly associated with all-cause mortality, cardiovascular mortality, and cancer mortality. “Patients with diabetes and coexisting depression face substantially elevated mortality risks beyond cardiovascular deaths,” they reported (Am. Fam. Med. 2009;79:414-21).

In another study, researchers at the University of Southern California also tracked the rates of microvascular and macrovascular complications by conducting follow-up interviews between 2005 and 2007 with the surviving study participants. For this analysis, microvascular complications included blindness, end-stage kidney disease, amputations, and kidney failure; and macrovascular complications included myocardial infarction, stroke, and cardiovascular procedure. The authors determined that, over the 5-year follow-up period, participants with major depression had a 36% increased risk of developing microvascular complications and a 25% increased risk of developing macrovascular complications, compared with patients without major depression. Reducing the risk of diabetes complications requires “better interventions that not only treat the diabetes but address any accompanying depression as well,” the authors concluded (Diabetes Care 2010;32:264-9).

Such interventions exist, and they are effective. In 2007, Dr. Hilary Bognner and colleagues in the University of Pennsylvania, Philadelphia, conducted a randomized, controlled trial of a depression treatment program for older African American male patients who were in primary care. The researchers used data from the multisite, practice-randomized, controlled Prevention of Suicide in Primary Care Elderly: Collaborative Trial (PROSPECT), which they implemented as a substudy of the National Death Index.

Patients with diabetes in the study who screened positive for depression were randomized to usual care or to a depression management intervention, which involved assignment to a depression care manager who worked with the patient’s primary care provider to recommend treatment, monitor, and assist with adherence. Patients in the intervention group were half as likely as patients in the usual care group to die in the 5-year follow-up period (Diabetes Care 2007;30:3005-10).

In a more recent study, Dr. Bogner and her colleagues determined that integrating treatment for type 2 diabetes and depression improved medication adherence, glycemic control, and depression outcomes in older African American men—a group that is at high risk for poor outcomes. Of the 58 African American male patients aged 50-80 years who participated in the pilot trial, those who were randomized to integrated depression treatment had significantly greater adherence to their oral hypoglycemic and antidepressant medications at 6 weeks than did the usual care group. (Diabetes Educ. 2010;36:284-92).

Dr. Bogner said: “An interview that we conducted that was part of our emotional health screening questions had positive predictive value for depression ranging from 67% to 84%, indicating the value of a low-cost, easily administered assessment in the primary care setting (Diabetes Care 2009;32:2156-60).

Combined behavioral interventions also can play an important role in the management of depression in adult patients with diabetes. Mary de Grooth, Ph.D., of Indiana University, Indianapolis, and her colleagues recently reported the results of a study designed to test the effectiveness of a combination behavioral approach to the treatment of depression in adult patients with type 2 diabetes living in the rural Appalachian region. The 12-week interdisciplinary intervention, called Program ACTIVE, combined concurrent cognitive behavioral therapy and community-based exercise. The study enrolled 50 adults with diabetes who had screened positive for depression at their usual care base line. Immediately after the intervention and at 3 months after the intervention, the mean Beck Depression Inventory scores of the participants improved significantly relative to baseline, and more than half of the patients no longer met the criteria for major depressive disorder, the authors reported.

With respect to diabetes outcomes, significant improvements were observed in blood glucose levels and low-density lipoprotein cholesterol levels relative to baseline, both immediately after and 3 months after the intervention, the authors wrote (Diabetes Spectrum 2010;23:18-25).

Interventions such as Program AC TIVE can be successful in improving depression and diabetes outcomes despite geographic and financial obstacles “if they are flexible in their approach and make use of community resources to facilitate participant self-care,” according to Dr. de Groot. “In doing so, they recognize the value of the significant costs associated with comorbid depression and diabetes.”

By Diana Mahoney. Share your thoughts and suggestions at cpnews@elsevier.com.