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Effective Care Management of Depressed Diabetes Patients
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ABSTRACT

Objectives: The goal of this study is to determine the effectiveness of nurse-delivered, telephone-based, cognitive-behavioral therapy for depressed diabetic patients.

Research Plan: Patients are randomized to: (1) brief education about depression, diabetes self-care, and physical activity; or (2) telephone care management including antidepressant medication care management (MCM) and/or cognitive behavioral therapy (CBT). The MCM module uses a standard algorithm to identify efficacious antidepressants and promote adherence. The CBT module addresses symptoms, exercise, and communication skills.

Methods: _Surveys:_ Patients complete clinic-based surveys at baseline and 12-months to measure their health status, self-care, provider-patient communication, and resource use. At 4 months, they complete a mailed questionnaire to capture short-term changes in depressive symptoms, walking, patient-provider communication, medication adherence, and quality-of-life. _Physiologic Measures:_ At baseline and 12-months, patients' A1c and cholesterol are measured via a fingerstick blood test. We also measure blood pressure, height, and weight. With patients' 4-month mailed surveys, they complete fingerstick A1c tests and return the results via mail. The blood tests are identical to those diabetes patients use to self-monitor their blood glucose. _Pedometers:_ We measure distance walked at baseline, 4 months, and 12 months using a pedometer. Patients record their walk distances for one week and return the results via mail. _Electronic data:_ Utilization and billing databases will be used to identify health service utilization (ER visits, outpatient care, hospitalizations) occurring during patients' participation and the prior 12 months. All patients will provide written consent administered prior to their face-to-face screening and baseline interviews.

Findings/Results: The study has enrolled 339 patients, with 172 randomized to the intervention group and 167 to the enhanced usual care group. Of the 339 enrolled, 113 are Ann Arbor VA patients, 109 are from the Genesys Health System in Grand Blanc, and 117 are patients at the U of M Health System. Of the 111 intervention patients who are post 16 weeks enrollment, 77% have completed 3 or more CBT phone sessions and 58% have completed 8 or more CBT phone sessions.
The average age of enrollees is 56, 51% are women, and 14% are racial/ethnic minorities. Preliminary findings indicate that at the time of enrollment, the typical study participant is significantly depressed and overweight, has high blood pressure and high cholesterol, and many have unhealthy HbA1c levels. Forty percent of study participants report at baseline that they are moderately depressed, 36% report severe depression, and the remaining enrollees report milder depressive symptoms as measured by the Beck Depression Inventory II (BDI-II). The average baseline Body Mass Index (BMI) for enrolled patients is 37, with 51% in the obese range (31 to 39) and 29% extremely obese. Moreover, many patients report multiple comorbid illnesses and significant limitations in their ability to be physically active (e.g., due to chronic pain or diabetes-related peripheral neuropathy). Despite this, many increase their walking over the course of the intervention and report significant remission of their depressive symptoms. The number of patients with follow-up data is still relatively small, but many patients report being very satisfied with the program. In the coming year we will complete the CBT intervention phase and begin to analyze the results.

Publications: Striplin D, Piette J. Diabetes and Depression: Improving Exercise, Improving Mental Health. Dimensions Newsletter, American Society on Aging, Fall 2008 (http://www.asaging.org/asav2/mhan/enews/08fall/research_to_practice.cfm).