

Pharmacist-led telehealth disease management in patients with diabetes and depression.

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Abstract

Rationale: There is a high prevalence of major depression and significant depressive symptoms in patients with diabetes mellitus (DM). Co-morbid depression in diabetes results in decreased adherence to diabetes self-care and attenuates the effects of medical interventions. A pharmacist-led diabetes case management program at the Providence VA Medical Center has improved treatment adherence, glycemic control and cardiac risk reduction in patients with concomitant diabetes and mental illness. However, the frequent clinic visits that are necessary to control cardiac risk factors are cumbersome for patients and costly to the institution. We have other preliminary data that show that depressed patients are responsive to a telehealth disease management program, but whether this strategy could be used by clinical pharmacists to treat patients with diabetes and depression instead of the standard individual visits has not been tested.

Objective: To determine whether a pharmacist-led telehealth disease management program is superior to usual care in improving diabetes medication treatment adherence in patients with concomitant diabetes and depression.

Methods: We propose to conduct a randomized, controlled pilot study of 80 patients with concomitant diagnosis of diabetes and depression with a hemoglobin A1C > 8%. Forty patients will be randomly assigned to receive the pharmacist-led telehealth program (experimental arm), which will include an initial visit to learn about the technology, weekly monitoring of telehealth data, followed by telephone calls when alerted by the telehealth system for 6 months. Another 40 patients will be allocated to usual care (control arm). The primary outcome will be the change in diabetes and depression medication adherence rates. Secondary outcomes will be the difference between study arms in the mean hemoglobin A1C and depression burden as measure by Patient Health Questionnaire-9 (PHQ-9). The tertiary outcome is the personnel cost of the intervention based upon the number of pharmacist and nursing care hours spent with patients.

Expected Contribution: This project will demonstrate the feasibility, efficacy, and efficiency of a pharmacist-led telehealth disease management program. It is expected that patients will improve in their treatment adherence greater than usual care with minimal added provider time.