

Effect of Depression on Diabetes Control and Medication Adherence in Underserved Patients

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Abstract

Objectives: Clinical studies have shown that depression can be common in patients with chronic diseases, such as diabetes mellitus. The presence or severity of depression may affect a patient's ability to adhere to treatment plans and subsequently, the degree of diabetes control as well as the development of complications of diabetes. This effect may be even greater in patients from minority backgrounds or with socioeconomic barriers to optimal health care but little is known about this topic. The objectives of this study are: 1) to determine the prevalence and severity of depression in patients with diabetes mellitus at an urban primary care clinic dedicated to treating underserved populations, and 2) to identify correlations between depression and diabetes control – specifically with medication adherence, indicators of glycemic control, and diabetes complications in this population. The results of this study may be used to impact the way in which health care professionals at the study site, and potentially other similar clinics, address the complete health needs of their diabetic patients and the role of pharmacists in this collaborative care.

Methods: Consented patients with diabetes mellitus are screened for depression at the time of scheduled clinic appointments using the Patient Health Questionnaire (PHQ-9), a validated nine item self-report of depressive symptoms. Patients also complete the Modified Morisky scale, 6-item validated self-report of medication adherence behavior, and the SF-12 Health Survey, a 12-item validated self-report of general health status. Medication adherence is also determined by a physical pill count of all medications brought to the clinic at the time of study enrollment and a review of each patient's refill history within one year prior to study enrollment. Diabetes control is ascertained by a chart review of pertinent clinical data, focusing on glycosylated hemoglobin, blood pressure readings, and lipid profile within the past 12 months. In addition, the duration of diabetes, the number of diabetic complications, the presence of other concomitant disease states, and the medication regimens are also evaluated. Health care utilization as defined by the number and type of clinic appointments, emergency department visits, and hospitalizations within the year prior to study enrollment date are also documented. Statistical analyses are performed to compare clinical parameters between patients with and without depression, and explore the relationship between depression severity, diabetes control, and medication adherence. This study has been approved by the Institutional Review Board and study recruitment is ongoing.