

ORIGINAL ARTICLE

# THE SOUTHCENTRAL FOUNDATION DEPRESSION COLLABORATIVE

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## ABSTRACT

**Objectives.** To describe a collaborative between a primary care clinic and a behavioral health clinic to treat depression among Alaska Native and American Indian patients.

**Study Design.** Cross-sectional study.

**Methods.** Protocols for screening and intervention are described. The Patient Health Questionnaire identified individuals as negative or positive for DSM-IV depression. A computerized medical record was queried for descriptive data. Distribution of depression symptoms and diagnoses, antidepressant prescription, and service utilization highlight successes and weaknesses.

**Results.** Of those screened (n=14,648), 17.2% (n=2,534) screened positive for depression. A little more than half (57%) of positives were prescribed antidepressant medications. Roughly 55% of patients who initially screened positive scored negative for depression after follow-up. Less than half (42%) of patients who initially screened positive had received specialty behavioral health care or a mood disorder diagnosis during the previous year.

**Conclusions.** This program successfully identified and treated the depressive symptoms of many Alaska Native and American Indian patients who had not presented for specialty care and had not previously been diagnosed as depressed. Implementing similar programs elsewhere may help address depression as a significant health concern in the Alaska Native and American Indian population. Recommendations for future investigation are delineated to guide program improvement efforts and add to the general health disparities literature.

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**Keywords:** depression, screening, treatment, primary care, Alaska Native, American Indian

## INTRODUCTION

In the United States, major depression affects 6 to 10% of individuals in primary care (1), is associated with more than 20,000 suicides annually, and is estimated to cost 83 billion US dollars in direct and indirect costs (2, 3). The age-adjusted suicide death rate for Alaska Native and American Indian people is 72% higher than for the combination of all races in the United States (4). Alaska Native and American Indian people are more likely than white people to seek care for problems such as depression from general medical providers than from behavioral health specialists (5). Only three studies in the past ten years, however, have specifically examined behavioral health in primary care among Alaska Native and American Indian people (6-8), one specific to depression. These limited efforts indicate depression is at least as common among Alaska Native and American Indian people as the general United States population (6-9). An Indian Health Service report recommended routine mental health screening in general medical practice citing depression as the most common mental disorder (10) but there are few models of successful programs for organizations to follow.

## MATERIAL AND METHODS

In 2001, Southcentral Foundation created a multidisciplinary team comprised of members from the primary care clinic and the behavioral health clinic to improve the organizational response to Alaska Native and American Indian patients with depression. The primary care system is more fully described in another

article in this issue (11). Consistent with the scientific literature, Southcentral Foundation recognized many of the depressed patients presented for care with a variety of somatic complaints, had high service utilization, and did not seek care in the behavioral health clinic (12). Southcentral Foundation judged that primary care providers could effectively and independently treat most cases of depression. It was recognized, however, that primary care providers would need behavioral health consultation to treat some patients and that other patients would require specialty care.

To create a collaborative model, the team examined the approach of the Institute for Healthcare Improvement Breakthrough Series (13). The vision of the Breakthrough Series is to improve the quality of health care services in specific topic areas such as depression and asthma while reducing costs. Southcentral Foundation used this approach to create depression screening and treatment protocols based upon severity of depression. The subsequent screening and intervention in primary care with consultation from behavioral health is referred to as the Southcentral Foundation Depression Collaborative. The current status of the Depression Collaborative will be described in the following paragraphs including a delineation of descriptive metrics. Implementation challenges will also be discussed.

### Screening instrument

The Patient Health Questionnaire (PHQ) (14) was used by the Depression Collaborative to screen for depressive symptoms. The Patient Health Questionnaire was chosen as it is a brief measure and amenable to the fast pace of primary care. The questions also directly

correspond with DSM-IV criteria for major depression thus facilitating diagnostic assessment. Nine questions assessed symptoms over the previous two weeks and items were scored 0 to 3 according to presence and frequency. A total score was computed by summing the items, with a possible range of 0 to 27. Based upon total score, patients were grouped into four ordinal categories (0-9, 10-14, 15-19, and 20-27). Scores above 10 were considered

as a positive indicator for depression with scores of 10 to 14 suggesting mild depression, 15 to 19 moderate, and 20 and above suggesting severe depression. The Patient Health Questionnaire was derived from the Primary Care Evaluation of Mental Disorders (PRIME-MD) (15) comprised of two components: a patient questionnaire (the Patient Health Questionnaire) and a semi-structured provider interview. The two-part Primary Care Evaluation of

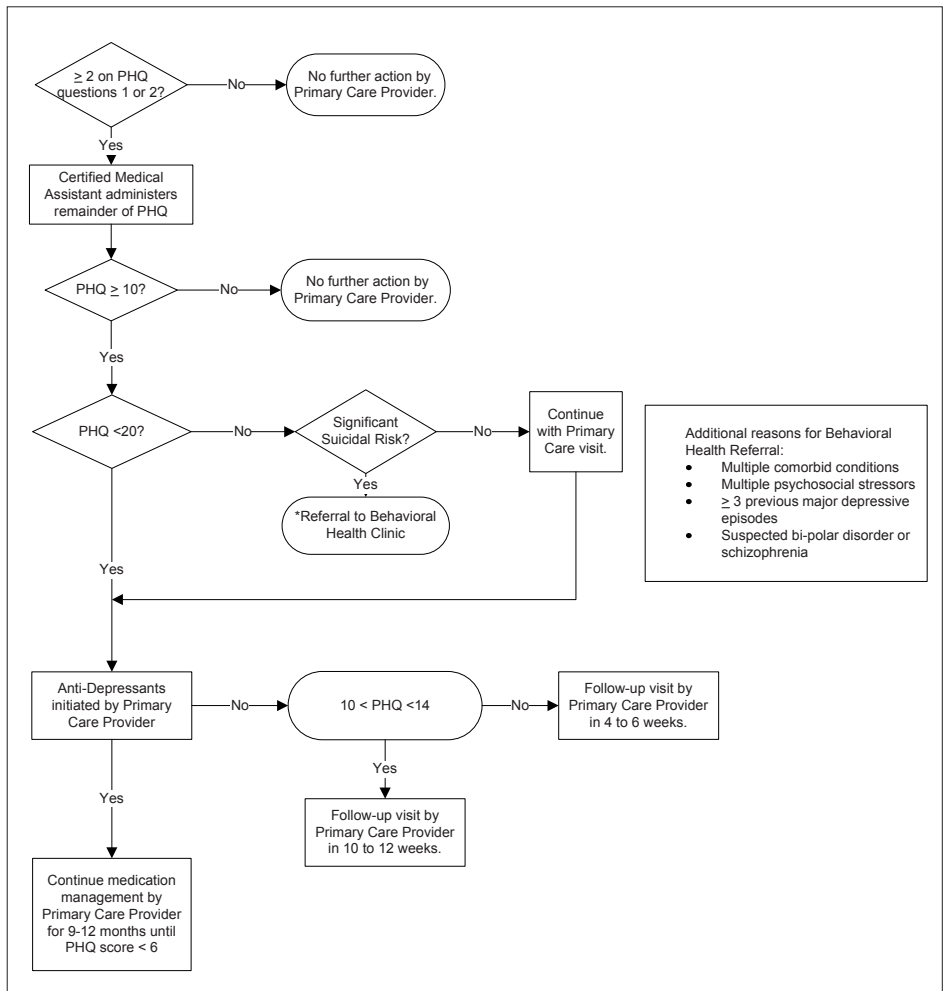


Figure 1. Depression Collaborative Intervention Protocol. PHQ = Patient Health Questionnaire

Mental Disorders instrument has been validated in the Alaska Native and American Indian population (6), the Primary Care Evaluation of Mental Disorders instrument and Patient Health Questionnaire have strong concordance, and the Patient Health Questionnaire has been found reliable and valid (16).

### **Screening protocol**

To minimize physician burden, a certified medical assistant or licensed practical nurse administered the Patient Health Questionnaire prior to a scheduled visit in addition to recording other vital signs such as the patient's blood pressure and temperature. The first two items corresponded to depressed mood and anhedonia, one of which must be present for a two-week period to qualify for a depression diagnosis. Therefore, if these items were scored as not present or present for less than a week, the remaining 7 items were not administered. The certified medical assistant or licensed practical nurse computed the final score, documented it on the progress note, and placed the Patient Health Questionnaire in the chart. The Patient Health Questionnaire score and date of screening were entered into the electronic medical record by the coding department. See Figure 1 for a depiction of the screening protocol and the intervention protocol described below.

### **Intervention protocol**

If the total score was 9 or below, intervention was not offered and the patient was rescreened in one year. The certified medical assistant or licensed practical

nurse was prompted for annual screening by a reminder field populated electronically based upon date of previous Patient Health Questionnaire screening. If 20 or above (suggesting severe depression) or if the patient had suicidal ideation and a plan, a referral to the behavioral health specialty clinic occurred immediately. If between 10 and 19 (suggesting mild or moderate depression), the primary care provider addressed the symptoms in the current visit or scheduled a follow-up appointment if insufficient time.

The primary care provider first evaluated the nature of any symptoms by inquiring about symptom duration, past treatment, previous depressive episodes, functional impairment, and family history. In addition, whether the depression could be related to a physical disorder, a medication, or substance abuse/dependence was considered. A referral to the behavioral health clinic was suggested for the following indications: multiple comorbid conditions, multiple psychosocial stressors, 3 or more previous major depressive episodes, or suspected bipolar disorder or schizophrenia.

If the primary care provider determined a primary DSM-IV depressive disorder clearly existed, the provider considered different levels of intervention based upon the Patient Health Questionnaire score and patient preference. All levels of intervention for patients considered to be suffering from a depressive disorder involved psychoeducational information about depression such as self-care recommendations for physical activity and social support. If an antidepressant medication

was recommended but not dispensed because of patient preference, an in-person contact was made within 10 to 12 weeks for scores between 10 and 14, and within 4 to 6 weeks for scores of 15 or above. If antidepressant

medications were prescribed, a phone call was made by the primary care provider's case manager at weeks 1 and 2 after medication initiation. During this phone call, the case manager inquired about side effects, medica-

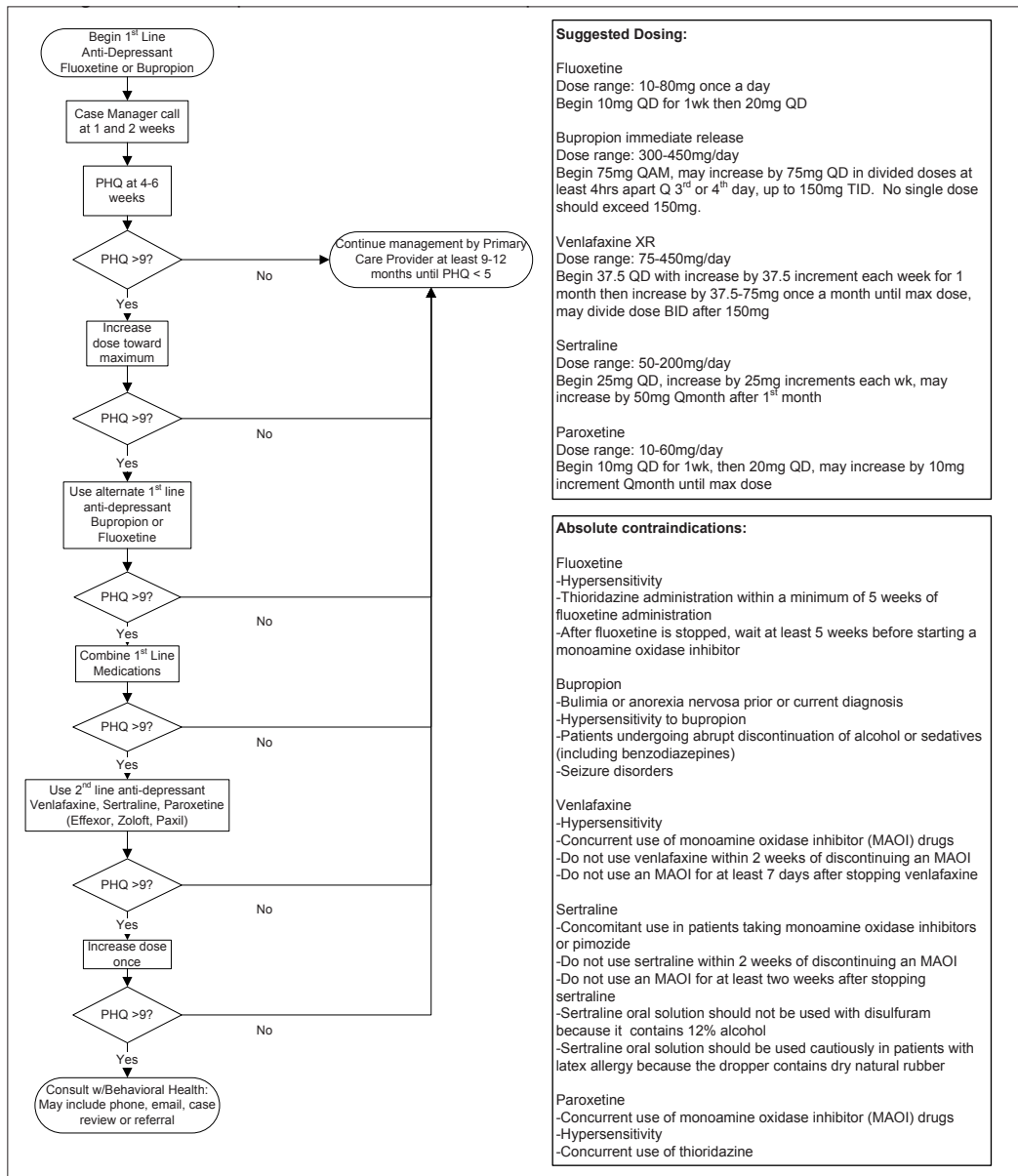


Figure 2. Depression Collaborative anti -depressant protocol. PHQ = Patient Health Questionnaire. QD = daily. BID = twice daily. TID = three times a day. MAOI = monoamine oxidase inhibitor.

tion compliance, and the status of depressive symptoms. An in-person follow-up was scheduled for 4 to 6 weeks later. To guide primary care providers in identifying an effective antidepressant medication, the behavioral health department drafted a flow diagram (Figure 2) with recommended first and second line treatments with suggested dosing and contraindications based upon a literature review (17-21). The intention was to continue the medication regime for 9 to 12 months and until the Patient Health Questionnaire score remained 5 or below to prevent early relapse.

### **Implementation challenges**

There were two significant types of challenges in the implementation of the South-central Foundation Depression Collaborative. The first involved adequate staffing to support the follow-up protocols. Originally, all customers who were positive for depression but declined antidepressant medications were scheduled for a follow-up visit 4 to 6 weeks later. Given difficulties reaching patients by phone, a significant amount of time was required by case managers to contact patients for a follow-up appointment. The multidisciplinary team decided to prioritize follow-up for those with moderate to severe depression and to be relatively less aggressive with those with a mild level of depression. Therefore, case managers began to contact customers with Patient Health Questionnaire scores defined as mild (10 to 14) at 10 to 12 weeks after the visit with their primary care physician rather than at 4 to 6 weeks.

The most significant type of challenge, however, involved anxiety among all types

of providers – certified medical assistants, case managers, primary care providers, and behavioral health providers. Certified medical assistants expressed discomfort about asking questions they perceived as highly personal and outside the scope of their training. Primary care providers were also concerned about being able to adequately address behavioral health symptoms given the short duration of appointments. Certified medical assistants, case managers, and primary care providers were concerned that a large volume of people with depression would far exceed the capacity to adequately respond. Behavioral health providers also reported concern that primary care providers lacked the specialized training necessary to provide adequate depression treatment. The multidisciplinary team helped address anxiety by clarifying the referral pathways between the behavioral health clinic and the primary care clinic. The members of the multidisciplinary team also acted as “champions” of the Depression Collaborative within their own departments. The multidisciplinary team also began collecting metrics to quantify the number of people screened and the number considered positive for depression. These metrics were shared routinely with the primary care providers, certified medical assistants, licensed practical nurses, and case managers.

### **Descriptive metrics**

The computerized medical record was queried to determine total number screened, distribution of depressive symptoms, antidepressant prescriptions, decrease in Patient Health Questionnaire scores at follow-up, and the number of people screened positive

who had attended an appointment in behavioral health or had received a mood disorder diagnosis in the 12 months prior to screening. In the analysis, the following medications were considered antidepressants: bupropion, citalopram, fluoxetine, fluvoxamine, mirtazapine, nefazadone, escitalopram, paroxetine, sertraline, trazodone, and venlafaxine. Mood disorder diagnoses included major depression, bipolar disorder, dysthymia, depressive disorder not otherwise specified, and mood disorder due to a medical illness.

## RESULTS

Between February 2001 and June 2005, 14,648 patients were screened for depression. During the same time period, 23,262 patients were seen by their primary care providers; thus 62.6% of patients were successfully screened. Of those screened (n=14,648), 17.2% (n=2534) had Patient Health Questionnaire scores of 10 or above and were considered positive for depression. Less than half (42%) of these patients had attended a behavioral health appointment or received a mood disorder diagnosis in the year prior to screening. Roughly 950 of patients who screened positive (37.4%) had scores suggesting mild depression, 915 (36.1%) had moderate scores, and 671 (26.5%) had scores in the severe range. More than half (58.7%) of patients who screened positive (n=1489) were prescribed antidepressants and 70% (n=1775) received follow-up visits and/or antidepressants. Of those who received follow-up visits and/or antidepressants, 78.1% (n=1388) eventually had Patient Health Questionnaire scores of less than 6.

## DISCUSSION

In numerous needs assessments conducted with Alaska Native and American Indian people in the Anchorage community, behavioral health issues including depression and substance abuse were consistently identified as priorities. Likewise, the Indian Health Service repeatedly cited continuing disparities and unmet behavioral health needs of Native people across the United States (10). In many Alaska Native and American Indian communities, behavioral health specialty care was limited or not available. The Southcentral Foundation Depression Collaborative presented a promising model that could be modified in other communities where general medical care is present. General practitioners may have been wary of uncovering a large unmet need but the depression rates in those successfully screened in the Southcentral Foundation Depression Collaborative was roughly the U.S. average (12). Descriptive data also suggested follow-up and medication administration were effective for a significant proportion of those identified as depressed.

The results described have several important limitations. First, the patient sample was restricted to active users of Southcentral Foundation services and did not include Alaska Native and American Indian people using other primary care services. It is unknown how Alaska Native and American Indian people in other settings may be different. In addition, the screening rate was roughly 60% and the characteristics of the 40% of unscreened individuals were undetermined. The relevant literature suggests detection of depression in primary care settings varies by patient age and race, provider gender, and

other program characteristics (22-24). Once depression is identified, level of symptoms differs by demographic and other factors including race (23, 25-27). Such program characteristics and demographic variables could affect the Southcentral Foundation Depression Collaborative. Because this was a cross-sectional study of a convenience sample, the program was not able to elucidate any differential impact of other treatments or any placebo effect. Since the efficacy of antidepressants and disease management programs for mild depression is under question (28, 29), differences in outcomes between mild and major depression should be examined.

### Conclusions

The Southcentral Foundation Depression Collaborative collected data about a large sample of Alaska Native and American Indian primary care patients in the Anchorage area. These data are important because of the paucity of research with this population. Furthermore, effective models are often not presented in the general literature. The data presented about the Southcentral Foundation Depression Collaborative suggest screening and management of depressive symptoms in a primary care setting is worthwhile as a potential way to reduce rates of untreated depression among Alaska Native and American Indian people.

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