49.   Screening for Depression

RECOMMENDATION

There is insufficient evidence to recommend for or against the routine use of standardized questionnaires to screen for depression in asymptomatic primary care patients. Clinicians should maintain an especially high index of suspicion for depressive symptoms in those persons at increased risk for depression (see *Clinical Intervention*). Physician education in recognizing and treating affective disorders is recommended (see Chapter 50).

Burden of Suffering

Depression is a common and costly mental health problem, seen frequently in general medical settings.[1] Major depressive disorder, diagnosed by structured psychiatric interviews and specific diagnostic criteria, is present in 5–13% of patients seen by primary care physicians.[2–7] The prevalence of this disease in the general population is about 3–5%.[8] The annual economic burden of depression in the U.S. (including direct care costs, mortality costs, and morbidity costs) has been estimated to total almost $44 billion.[9] Depression is more common in persons who are young, female, single, divorced, separated, seriously ill, or who have a prior history or family history of depression.[10]

Major depressive disorder can result in serious sequelae. The suicide rate in depressed persons is at least 8 times higher than that of the general population.[11] In 1993, 31,230 suicide deaths were reported, although the actual number is probably much higher.[12] Most persons who commit suicide have a mental disorder, with depression associated with about half of suicides.[9,11] The incidence of documented suicides by adolescents and young adults has tripled in the last 25 years, with 5,000 youths committing suicide each year and perhaps as many as 500,000–1,000,000 making an attempt[13] (see Chapter 50).

On a population basis, the most important effect of major depression may be on quality of life and productivity rather than suicide. This effect is widespread and has been shown to be comparable to that associated with major chronic medical conditions such as diabetes, hypertension, or coronary heart disease.[14,15] Also, depressed persons frequently present with a variety of physical symptoms—three times the number of somatic symptoms of controls in one study.[16] If their depression is not recognized, these

patients may be subjected to the risks and costs of unnecessary diagnostic testing and treatment.[17,18]

Accuracy of Screening Tests

The prevailing standard for the diagnosis of depression is the opinion of an examining psychiatrist that a patient's symptoms meet the criteria described in the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV).[19] For research purposes, psychiatric diagnoses have been operationalized through the development of structured diagnostic interview instruments such as the Diagnostic Interview Schedule (DIS).[20]

To aid in the detection of this important disorder, screening questionnaires have been proposed to predict a patient's risk of depression. Several brief (2–5 minutes) questionnaires have been tested for routine use by primary care providers. These include the Beck Depression Inventory (BDI),[21] the Center for Epidemiologic Studies Depression scale (CES-D),[22] and the Zung Self-Rating Depression Scale (SDS).[23] These three instruments have been shown to detect adult patients with depressive symptoms fairly accurately in primary care settings, with sensitivities and specificities that vary depending on the cutoff score selected. For example, when compared to the diagnosis of major depression in primary care patients using a standardized psychiatric instrument such as the DIS, the BDI had a sensitivity of 100% and a specificity of 89% at a cutoff score of 16;[6] the CES-D had a sensitivity of 89% and a specificity of 70% at a cutoff score of 27;[2] and the SDS had a sensitivity of 97% and a specificity of 63% at a cutoff score of 50.[24] A recent meta-analysis of 18 studies that compared various depression screening instruments to accepted diagnostic criteria in primary care patients estimated an overall sensitivity of 84% and specificity of 72% for these tests.[27a] The authors calculated that screening 100 primary care patients (prevalence of major depression 5%) would identify 31 patients with a positive screen, 4 of whom actually have major depression.

Depression screening questionnaires developed specifically for children and adolescents include the Center for Epidemiologic Studies Depression Scale for Children (CES-DC)[25] and the Children's Depression Inventory (CDI).[26] They have been validated against structured diagnostic interview instruments developed for children and adolescents. At a cutoff of 15, the CES-DC had a sensitivity of 71% and a specificity of 57% for major depressive disorder.[25] In addition, the adult CES-D and BDI have been tested on adolescents, with a sensitivity of 84% and a specificity of 75% for the CES-D at a cutoff of 24 and a sensitivity of 84% and a specificity of 81% for the BDI at a cutoff of 11.[27]

It should be noted that the usual nomenclature used in the assessment

of screening tests for asymptomatic persons is not strictly applicable to depression screening, because the diagnosis of depression is itself based on symptoms. A patient cannot truly be asymptomatic and have major depressive disorder. Thus, these screening questionnaires are actually being evaluated for their ability to detect unrecognized, rather than strictly asymptomatic, depressive symptoms (sleeplessness, loss of appetite, etc.) and disease.

Effectiveness of Early Detection

It has been repeatedly documented that primary care providers do not recognize major depression in approximately half of their adult patients with this disorder.[2,28–31] Because the majority of persons with depression are seen by nonpsychiatrist physicians,[32] and because effective treatments—drugs, psychotherapy, or a combination of the two—are available for the treatment of depression,[33] it has been proposed that routine depression screening could result in improved recognition and earlier treatment of depression with improved patient outcome.

Clinical trials have shown that the use of depression screening tests in primary care settings can increase physician detection of depression.[31,34–36] A randomized controlled trial of screening with SDS found increased recognition and increased treatment of depression in the patients detected by screening.[37] A prospective controlled study found that providing SDS scores to the physician and prescribing a 4-week course of antidepressants to those with elevated scores resulted in lower patient SDS scores than in controls in whom SDS results were withheld and who received unspecified care.[38] This study had several design limitations, however, including confounding variables, different data collection techniques for controls, short follow-up, and the use of questionnaire scores as outcome measures.

These and other studies have established that depression screening can lead to increased recognition and, in some studies, treatment of depression in primary care patients. Separate research has found that the treatment of depressed patients leads to improved outcome.[33] Taken together, however, these studies still constitute insufficient evidence to conclude that routine depression screening is indicated in unselected patients, because it has not been shown that the early detection and treatment of depression in primary care leads to improved outcome when compared to routine diagnosis and treatment of this disorder when symptoms appear and are detected. While there is evidence that the initiation of treatment in the early stages of a recurrent episode of depression in psychiatric settings results in a better outcome than intervention when the traditional symptoms of depression become conspicuous,[39] data are not available
demonstrating a similar advantage of ea

initial onset of depression or for the typically less severe depression seen in primary care. No published studies have shown improvement in rigorously assessed psychiatric outcome in primary care patients screened, treated, and compared to controls, although a study of this type is currently under way with an adult population.[40]

No studies to date have demonstrated that screening asymptomatic children or adolescents for depression leads to improved outcomes.

Recommendations of Other Groups

The Canadian Task Force on the Periodic Health Examination found fair evidence to exclude the use of depression detection tests from the periodic health examination of asymptomatic people.[41] The Depression Guideline Panel sponsored by the Agency for Health Care Policy and Research recommended that providers maintain a high index of suspicion for depression and evaluate risk factors, detecting depressive symptoms with a clinical interview.[42] The American Academy of Family Physicians advises physicians to remain alert for depressive symptoms in adolescents and adults;[43] this policy is under review. The American Medical Association recommends that all adolescents be asked annually about behaviors or emotions that indicate recurrent or severe depression.[44] Bright Futures recommends annual screening of adolescents for behaviors or emotions that may indicate recurrent or severe depression or risk of suicide.[45]

Discussion

At present, available depression questionnaires lack the evidence necessary to support their routine use as screening tools in the periodic health examination for primary care patients.[27a] Emerging research, both on current screening questionnaires[40] and on new primary care mental disorder diagnostic tools,[46] may change this situation. The enormous burden of suffering from this disease, its high prevalence in primary care settings, and its frequent presentation with somatic symptoms that lead to extensive medical testing and interventions all argue for better awareness of depressive symptoms by primary care physicians so that fewer cases of depression will escape detection. It is also important that depressed persons who are identified receive adequate follow-up care.

CLINICAL INTERVENTION

There is insufficient evidence to recommend for or against the routine use of standardized questionnaires to screen for depression in asymptomatic primary care patients ("C" recommendation). Clinicians should, however, maintain an especially high index of suspicion for depressive symptoms in adolescents and young adults, persons with a family or personal history of

depression, those with chronic illnesses, those who perceive or have experienced a recent loss, and those with sleep disorders, chronic pain, or multiple unexplained somatic complaints. Physician education in recognizing and treating affective disorders is recommended (see Chapter 50). Persons with depressive symptoms should be evaluated further and, if diagnosed with major depressive disorder, either treated or referred for treatment.

The draft update of this chapter was prepared for the U.S. Preventive Services Task Force by Douglas B. Kamerow, MD, MPH.

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