Recognition of Depression by Family Medicine Residents: The Impact of Screening

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Psychiatric problems are often encountered in general medical settings, yet physicians frequently fail to identify such problems. Validated questionnaires assessing psychiatric symptoms have been shown to be more sensitive than physicians in detecting cases of psychiatric morbidity.

This study deals with depression, the psychiatric problem most frequently seen in primary care settings. A self-administered depression questionnaire was used to alert residents to possible cases of depression.

Relay of information from the questionnaire significantly increased resident recognition of depression.

It has been estimated that between 1 and 43 percent of patients seen in general medical settings have a psychiatric illness. Two methods have been used in determining these estimates. One method is to count those cases diagnosed by the physician;[1-7] the other method is to use a structured interview or questionnaire to identify cases.[2, 8-10]

Prevalence estimates based on physician diagnosis tend to be lower than those using interviews or questionnaires. One explanation for this difference is failure of physicians to recognize psychiatric problems. Goldberg and Blackwell[8] found that a general practitioner who was also trained as a psychiatrist missed one third of the psychiatric problems that were identified by a questionnaire designed to evaluate psychiatric morbidity in the primary care setting. Johnstone and Goldberg[9] reported similar results.

Of all psychiatric problems seen in primary care settings, depression is probably the most common.[11,12] Depression has, in fact, been identified as one of the ten most common problems seen in a family practice setting.[12]

It is important to recognize depression because:
1. it is common,
2. failure to recognize depression denies patients potentially effective treatment, and
3. when depression is not recognized, the patient can be subjected to costly and harmful diagnostic procedures in an effort to find an explanation for his or her symptoms.

Several studies[8,9,13] demonstrate that a screening questionnaire can identify psychiatric problems missed by physicians, but the studies have not determined whether physicians would accept the results of the questionnaire (ie, there is no evidence from these studies that notifying physicians of the results of screening would alter their behavior). Also, most of these studies identify broad

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areas of psychopathology rather than single clinical entities with a well-defined treatment (eg, depression).

The purpose of this study is to determine whether use of a depression screening questionnaire increases recognition of depression in a family medicine practice. The hypothesis is that if a physician is alerted to depression by the instrument then he/she would be more likely to explicitly note depression as a problem on the patient's chart.

Methods

Screening Instrument

A self-rating depression scale (SDS) has been developed by Zung as a readily administered screening instrument.[14] It has been validated in a number of clinical studies.[15,16] An SDS index score of 50 or greater identified 88 percent of patients diagnosed by psychiatrists as depressed.[15] When persons not depressed were given the SDS, a score of 50 or greater was found to identify 12 percent of the normal subjects as depressed.[15]

The SDS is a 20-item scale which has both a self-administered and an interviewer-administered form,[17] so that patients unable to complete the self-rating form can be interviewed with the same items. Parallel administrations of self-rating and interviewer-administered forms have yielded similar results as indicated by a Pearson product moment correlation of .87.[17]

The diagnostic criteria underlying the items are shown in Table 1. In using the SDS, the patient indicates to what extent each of the 20 items applied to him or her in four quantitative terms, ranging from "none or a little of the time" to "most or all of the time" during the preceding week.

Table 1. Diagnostic Criteria Evaluated by SDS*

Pervasive Affective Disturbance
1. Depressed, sad
2. Tearful

Physiological Disturbances
1. Diurnal variation
2. Sleep: early and frequent waking
3. Appetite: decreased
4. Weight: decreased
5. Libido: decreased
6. Fatigue: unexplainable
7. Constipation
8. Tachycardia

Psychomotor Disturbances
1. Agitation
2. Retardation

Psychological Disturbances
1. Confusion
2. Emptiness
3. Hopelessness
4. Indecisiveness
5. Irritability
6. Dissatisfaction
7. Personal devaluation
8. Suicidal rumination

*Adapted by permission from Zung, WWK: From art to science: The diagnosis and treatment of depression. Arch Gen Psychiatr 29:328, 1973, Copyright 1973, American Medical Association.

Study Population

All patients between the ages of 20 and 60 years who were seen at a family medicine center during the eight-week study period were asked to complete the SDS before being seen by their physician. Patients unable to complete the self-rating form were interviewed using the interviewer-administered form. Two hundred twelve patients completed the SDS. One patient refused to participate in the study.

The SDS was scored immediately after the patient completed the form. Each patient with an SDS score greater than 50 was then randomly assigned to the experimental or control condition. For the experimental condition a note was attached to the patient's visit form indicating to the physician, before seeing the patient, that this individual scored in the "mildly depressed" (SDS between 50 and 60) or "severely depressed" (SDS greater than 60) range. For the control condition, residents received a card indicating only that the patient had been screened, without specifying results.

For patients with SDS scores less than 50, residents also received a card indicating only that the patient had been screened. Thus, residents could not distinguish between patients who were not depressed and those depressed patients assigned to the control condition.

Table 2. Relationship Between Alerting Resident of Patient SDS Score ≥ 50 and Provider Notation of Depression ($x^2 = 11.75$, $P<.05$)

Resident alerted	Depression Noted in Medical Record
Yes (50 patients)	56% (28 patients)
No (46 patients)	22% (10 patients)

Table 3. Relationship Between Alerting Resident of Patient SDS Score ≥ 60 and Resident Notation of Depression ($x^2 = 5.33$, $P<.05$)

Resident Alerted	Depression Noted in Medical Record
Yes (22 patients)	73% (16 patients)
No (19 patients)	37% (7 patients)

Chart Audit Procedure

Charts of all patients included in the study were reviewed to determine whether the resident noted depression as a problem for the visit during the study period. Any assessment of depression in the record for that visit was counted as recognition. No attempt was made to evaluate the accuracy of the diagnosis. If a physician specifically felt that depression was not present, but the SDS indicated depression, the patient was not included in the data analysis (one case).

Results

Notification to the resident that a patient scored in the depressed range (SDS ≥ 50) increased recognition of depression (Table 2). In Table 2 depression is identified as an SDS score of 50 or greater. Only 22 percent of the depressed patients were identified by residents not receiving notification of SDS ≥ 50 compared to 56 percent of the depressed patients whose residents were given screening results. This difference is statistically significant ($P < .05$).

If the definition of depression is changed to SDS score ≥ 60, then only those patients reporting moderate and severe symptoms of depression are included in the depressed group; patients with mild symptoms of depression are not considered depressed. Identification is still enhanced by notification of the screening results (Table 3). Of these more clearly depressed patients whose SDS results were not given to residents, 37 percent were noted as depressed. When SDS results of these patients were transmitted to residents, notation rate rose to 73 percent. This difference is statistically significant ($P < .05$).

In addition to notification of screening results, level of training of the resident might affect recognition of depression. Senior residents might be expected to be more skilled at recognizing depression than junior residents.

Table 4 shows the relationship between year of residency training and notation of depression in cases in which the patient had been identified as depressed (SDS ≥ 50), but the resident was not informed of the results. First year residents did not record depression as a problem for any such patients, second year residents recognized eight percent, and third year residents recognized 39 percent. This difference is statistically significant ($P < .05$).

Although more experienced residents were more likely to identify depression in the absence of screening, this difference was eliminated when residents were notified of screening results.

Table 5 shows the relationship between year of residency training and notation of depression in cases in which the patient had been identified as depressed (SDS ≥ 50) and the resident was so informed. No statistically significant relationship appears. A comparison of Tables 4 and 5 shows that notifying the resident that a patient is depressed increases recognition of this problem by residents in all three years and eliminates the difference in recognition rate which exists in the absence of notification.

Table 4. Relationship Between Year of Residency Training and Notation of Depression When Resident Not Notified of Patient SDS Score ≥ 50 ($x^2 = 8.37$, $P<.05$)

Residency Year	Depression Noted in Medical Record
Third (23 patients)	39% (9 patients)
Second (13 patients)	8% (1 patient)
First (10 patients)	0% (none)

Discussion

Failure to recognize depression among general medical patients may well subject patients to unnecessary, costly, and occasionally dangerous diagnostic procedures in an effort to identify a physical explanation for symptoms. Failure to identify depression also denies patients potentially effective treatment. This study demonstrates that use of a depression survey questionnaire can significantly increase physician diagnosis of this common problem.

One of the questions raised by this study is: What factors might explain the difference in recognition of depression by first, second, and third year residents? Identification of factors responsible for this difference would have important implications in designing educational programs. One model which might explain this difference includes four qualities necessary for a physician to recognize depression in patients (Table 6).

First, physicians must be confident in their ability to treat medical problems if they are to recognize psychiatric illness. First year residents are often anxious about their ability to manage medical problems. First year residents characteristically see the technical and physical side of medicine as more urgent than the psychosocial, and consequently might overlook psychosocial symptoms.

Skills in the area of affective sensitivity are also necessary. Residents must be able to recognize affective states in others in order to recognize depression.

Physicians must know how to treat depression if they are to recognize it. It is not likely that a physician will identify a problem he does not know how to treat or manage. Skills in interviewing and counseling techniques as well as the ability to set realistic goals for treatment are necessary. The ability to set realistic goals involves setting appropriate expectations for patient improvement as well as providing appropriate physician input. Appropriate physician input includes judgment of when to confront, when to support, when to interpret, and how much emotional closeness or distance to maintain. Knowledge of psychotropic drugs is also an important element in the treatment of depression.

Attitudes regarding depression also seem related to physician recognition. Those physicians who consider depression an important, legitimate, and treatable problem would more likely recognize it than physicians who see depression as an unimportant problem or one outside the realm of medicine.

Screening for psychiatric illness should be thought of differently than screening for physical disease. One of the criteria considered necessary for screening to be effective is that the physical illness in question have an asymptomatic phase.[18] It has been suggested that screening for depression is

Table 5. Relationship Between Year of Residency Training and Notation of Depression When Resident Notified of Patient SDS Score ⩾ 50 (x^2 = .10, P = ns)

Residency Year	Depression Noted in Medical Record
Third (28 patients)	57% (16 patients)
Second (16 patients)	56% (9 patients)
First (6 patients)	50% (3 patients)

Table 6. Physician Qualities Necessary for Recognition of Depression

1. Medical knowledge
2. Affective sensitivity
3. Depression treatment knowledge
4. Attitudes toward depression

not worthwhile since depression does not have an asymptomatic phase.[19] However, the purpose of screening for psychiatric disease is to stimulate physician recognition of treatable problems, not to identify asymptomatic disease. This study demonstrates that screening for depression can increase the rate of identification of this treatable disorder. While the SDS should not be counted on to make a diagnosis any more than any other test or laboratory finding, it appears to have a useful role in data collection by family physicians.

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