# Primary Care Physician Use of Cognitive Behavioral Techniques with Depressed Patients

Patricia Robinson, PhD; Terry Bush, PhD; Michael Von Korff, ScD; Wayne Katon, MD; Elizabeth Lin, MD, MPH; Gregory E. Simon, MD, MPH; and Edward Walker, MD
*Seattle, Washington*

*Background.* Although researchers are paying more attention to the treatment of depression in the primary care setting, little is known about the nature of psychotherapeutic interactions that occur between primary care physicians and their patients in the context of a visit for depression. In recent years, brief cognitive behavioral therapy has been demonstrated to be efficacious, and the public has become more familiar with these techniques through media exposure and self-help books.

*Methods.* Depressed primary care patients were surveyed regarding the extent to which cognitive behavioral (CB) techniques were suggested during the primary care visit in which antidepressant medication was initially prescribed. One hundred fifty-five patients completed responses to phone surveys 1 month and 4 months after the visit. Patients were also surveyed regarding the recommendation of counseling by the primary care physician.

*Results.* The majority of patients (61%) reported that their physician advised them to identify activities they were already doing that helped them feel better. Physician recommendations regarding planning pleasurable activities, problem solving, challenging depressive thoughts, and planning activities that boost confidence were reported by 22% to 40% of study patients. Older patients reported fewer interactions about CB strategies. Primary care physicians' suggestion of CB strategies was associated with both patient use of CB strategies in the months following the visit and better adherence to recommended medication therapy during the first month of treatment.

*Conclusions.* Many patients seem to recognize the occurrence of psychotherapeutic interactions during visits to their primary care physician in which an antidepressant medication was prescribed, and patients' recognition of these interactions is associated with increased adherence to the recommended course of antidepressant prescriptions.

*Key words.* Depression; primary health care; physician-patient relations; patient compliance; patient adherence; cognitive therapy; cognitive-behavioral therapy.
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Depression is one of the most prevalent mental disorders seen among primary care patients,[1,2] and the majority of depressed persons seeking care obtain mental health care only from primary care physicians,[3] yet little is known about psychopharmacological and psychological treatments of depression provided by primary care physicians.[4–10]

Antidepressant medications are prescribed for over one half of the patients seen in primary care clinics for depression,[11] and 80% of all the antidepressants used in the United States are prescribed by primary care physicians. While the duration and frequency of primary care visits for depression preclude intensive cognitive behavioral (CB) treatment of depression, patients may derive unique benefits when primary care physicians integrate brief CB techniques into primary care visits. For example, psychological intervention during a supportive visit may enhance adherence to prescribed medication regimens.

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*From Mental Health Services (P.R.) and the Center for Health Studies (T.B., M.V.K., E.L., G.E.S.), Group Health Cooperative, and the Department of Psychiatry and Behavioral Sciences (W.K., E.W.), University of Washington, Seattle. Requests for reprints should be addressed to Patricia Robinson, PhD, Center for Health Studies, Group Health Cooperative, 1730 Minor Ave, Suite 1600, Seattle, WA 98101–1448.*


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Less depressed patients who are not being managed with medication also may benefit from brief CB interventions.

In addition to CB techniques, problem solving[13] and interpersonal therapies[14] are potentially useful techniques for the primary care physician. The model of interactions between patients and primary care physicians is shifting to a more collaborative one, in which patients are given greater information about, and responsibility for, choices in their treatment. This collaborative model is similar to that used by mental health providers using CB treatment in specialty settings. These developments may be fostering transfer of clinical techniques that have been used predominantly by psychotherapists into the mainstream of primary care medicine.[16,17]

This paper provides information about the use of CB techniques during primary care visits in which an antidepressant medication is initially prescribed (the "initial prescription visit"). It also describes patient-physician interactions about seeking counseling and factors that influence these interactions in the initial prescription visit, such as age and sex of patients and their physicians; depression severity; neuroticism; and whether the depression is acute or chronic. We examined the relationship between patient recognition of physician recommendation of CB techniques and (1) subsequent use of these techniques by patients, and (2) patient adherence to prescribed medication regimens. The major objective of these analyses was to determine which CB techniques primary care physicians are currently using and for which patients they are being used. The efficacy of brief CB interventions for the treatment of depression in primary care was not assessed.

## Methods

### *Study Setting*

The study was conducted at Group Health Cooperative of Puget Sound (GHC), a large staff-model health maintenance organization (HMO) serving approximately 390,000 residents in western Washington State. Group Health Cooperative provides comprehensive care on a capitated basis, with enrollees typically receiving GHC coverage through employer-subsidized plans; GHC includes approximately 45,000 Medicare enrollees and 12,000 enrollees covered by Medicaid or by Washington's Basic Health Plan, a state program for low-income residents. Primary care for adults is provided by approximately 360 physicians, with each full-time physician being responsible for a defined panel of 1600 patients. More than 95% of physicians providing primary care to adults are trained in family medicine; most of the remainder are trained in internal medicine.

### *Study Design*

Automated pharmacy data entered from September 1991 to April 1992, inclusive, were reviewed to identify patients receiving new prescriptions for an antidepressant from primary care physicians in two large primary care clinics. Prescriptions were considered new if the patient had not received an antidepressant prescription during the 3 months preceding the patient identification date. Medical charts of potential subjects were reviewed; 247 patients who were between the ages of 18 and 75 years and had received a diagnosis of depression during an antidepressant prescription visit were invited to participate in the study.

Sixty-six percent (164) of the eligible patients agreed to participate, 21% refused, and 13% were unavailable. The patients who agreed to participate and those who did not were similar in age, sex, treatment date, and type of antidepressant medications prescribed. Nine of those who agreed to participate were excluded, seven of whom never started taking the antidepressant that had been prescribed for them and two of whom did not complete the 4-month follow-up interview. The final sample consisted of 155 subjects who started taking newly prescribed antidepressants and completed both the original and the 4-month interviews.

Telephone interviews were conducted with 164 subjects between October 1991 and April 1992. The first interview occurred approximately 1 month after the prescription visit (mean, 25.3 days, standard deviation [SD]=14.5). A second phone interview was completed with 155 subjects 4 months after the original interview (mean, 119.9 days, SD=11.7).

### *Assessment Measures*

#### Depression Status

In the initial interview, patients were asked to rate the severity of depressive symptoms during the 2 weeks before the prescription visit. Depression was measured by means of a modified version of the Inventory for Depressive Symptomatology (IDS).[18] The IDS was modified to ascertain severity of patient self-reported symptoms of depression occurring during a 2-week period, as required by the *Diagnostic and Statistical Manual of Mental Disorders, Third Edition, Revised* (DSM-III-R) criteria for a diagnosis of major depression, and for administration over the telephone. The IDS was administered in the

4-month follow-up interview with respect to depressive symptoms in the 2 weeks before the follow-up interview.

The IDS is a 28-item measure of depression based on a scale of 0 (mild) to 3 (severe) and yielding a score ranging from 0 to 84. Rush and colleagues[18] evaluated the IDS with a group of outpatients, including 211 with unipolar depression or bipolar disorder, depressed phase, and 23 normal controls. Their results suggest that an IDS score of 36.5 (SD=9.7) is equivalent to a Beck Depression Inventory[19] score of 26 (SD=9.3) and a Hamilton Depression Rating Scale[20] score of 18 (SD=5.9).

#### Psychological Treatment in the Prescription Visit

The questionnaire on CB techniques used in the present study included items selected to parallel widely used CB interventions.[21] Additionally, subjects were asked whether their physician had discussed the possibility of seeking counseling for depression.

#### Psychological Coping Techniques

At the 4-month follow-up phone interview, subjects were asked to indicate whether they had used any of six psychological coping techniques to overcome depression. These included planning regular participation in activities that (1) are pleasurable, (2) boost confidence, (3) help with relaxation, and (4) are with other people; (5) using problem-solving techniques for problems in life (eg, problems with work or personal relationships); and (6) recognizing negative thoughts and replacing them with more positive thoughts. These techniques are simplified descriptions of strategies often used in brief psychological interventions with depressed patients.[21,22]

### *Patient Adherence to Prescribed Medications*

Patient adherence to prescribed antidepressant medication regimens was assessed in both interviews. Early adherence was defined as continuing use of antidepressant medications for at least 31 days after the initial prescription visit.[23]

## Results

### *Patient and Physician Characteristics*

Most subjects were female, employed, married or living with a partner, and formally educated for more than 12 years. Male and female subjects differed significantly in that men were significantly older (mean age, 52 years for men, 45 years for women; $P=.005$), less likely to be employed (54.8% of men, 77% of women; $P=.006$), and more likely to be married or living with a partner (77% of men, 55% of women, $P=.012$). Table 1 summarizes data on level of depression before the prescription visit and at the 4-month interview. Fifty-three percent of the subjects were experiencing an episode of major depression, as defined by DSM-III-R criteria, before the prescription visit. All other patients had substantial symptoms of depression but not enough to qualify for a major depression diagnosis. By the 4-month follow-up, most patients remained symptomatic but there was substantial improvement: only 10% continued to meet criteria for major depression.

Table 1. Patient Depression Status Before the Prescription Visit and at 4-Month Follow-Up

| Depression Status | Before Prescription Visit | At 4-Month Follow-up |
|---|---|---|
| IDS depression severity score, mean (SD)* | 31.226 (13.797) | 15.252 (11.359) |
| No. of DSM-III-R symptoms of major depression, mean (SD)† | 4.723 (2.533) | 1.736 (1.992) |
| Patients with major depression according to DSM-III-R criteria, % | 52.8 | 10.1 |
| Patients with previous episodes of depression, % | 70.8 | ‡ |
| Patients with dysthymia according to DSM-III-R criteria, % | 26.6 | ‡ |

**Range of IDS = 0 to 80, with higher scores indicating greater depression.*
*†DSM-III-R diagnostic criteria for major depression include at least 5 of 9 depressive symptoms, present for at least 2 weeks.*
*‡These variables were measured only before the prescription visit.*
*IDS denotes Inventory of Depressive Symptomatology[18]; SD, standard deviation; DSM-III-R,* Diagnostic and Statistical Manual of Mental Disorders, Third Edition, Revised.

Thirty-three different physicians were involved in the care of the 155 subjects. Fifty-one (33%) patients were seen by female physicians and 104 (67%) by male physicians. Almost 60% of the physicians were 45 years of age or older. Physician age was significantly related to patient age ($F= 11.66$, $P=.001$): older patients had older physicians.

### *Use of Cognitive Behavioral Techniques*

Table 2 shows the percentage of subjects reporting that their physician had recommended each of the five CB techniques. Overall, patients reported that the physician recommended a mean of 2.48 strategies in the antidepressant prescription visit. The sum of responses to the five items (1=no, 2=yes) was used as a summary measure of interactions about CB strategies to reduce depression (Chronbach's alpha=.77). We refer to this as the Cogni-

Table 2. Patient Recognition of Physician Use of Cognitive Behavioral Techniques During the Prescription Visit

| Cognitive Behavioral Technique | % of Subjects Recognizing Physician Use of Technique | Item-Total Correlation |
|---|---|---|
| Identifying activities already doing to help feel better | 61 | 0.782 |
| Planning pleasurable activities | 40 | 0.728 |
| Solving life problems (eg, those related to jobs, relationships) | 34 | 0.632 |
| Identifying and changing depressive thoughts | 31 | 0.653 |
| Planning activities that boost confidence | 27 | 0.614 |

tive Behavioral Interaction Scale (CBIS) score (range, 5 to 10 ). As shown in Table 2, item-total correlations were high, ranging from 0.61 to 0.78. We separated the high and low CBIS score groups, with high including subjects whose scores were above the midpoint of the CBIS score range. CBIS scores were significantly associated with patient age ($F=5.8$, $P=.004$). Younger patients (aged 18 to 39 years) were more likely to report physician use of behavioral strategies (CBIS mean, 7.29) than were middle-aged (aged 40 to 55 years, mean, 7.07) and older (aged 56 to 75 years, mean, 6.11) patients. This association remained significant after controlling for depression severity and physician age ($F=3.6$, $P=.03$). CBIS scores did not vary significantly by patient sex, level of education, previous depression, or level of neuroticism. While there was significant inter-physician variation in CBIS scores ($F=1.92$, $P=.007$), physician sex and age were unrelated to CBIS scores in multivariate analyses.

## *Interactions About Seeking Counseling*

Fifty-seven percent of the subjects reported that in the prescription visit their physician discussed with them the option of seeking counseling. Depression severity at the time of the prescription visit was strongly associated with discussions about seeking counseling ($\chi^2=12.314$, degree of freedom [df]$=1$, $P<.001$). Seventy percent of the subjects with major depression reported discussing the possibility of seeking counseling, compared with 42.5% of the subjects with subthreshold depression. Chronicity of depression, on the other hand, was associated with a lower rate of interaction about seeking counseling ($\chi^2=3.911$, df $= 1$, $P=.048$). Forty-four percent of the dysthymic group as compared with 63% of the patients without a history of dysthymia reported discussions about seeking counseling.

Older patients, less severely depressed patients, and patients with older physicians were significantly less likely to discuss seeking counseling during the primary care visit. In a logistic regression, patient age was no longer significant ($P>.05$), while depression severity ($P=.02$) and physician age ($P=.05$) continued to be significantly related to discussions about counseling.

## *Four-Month Follow-up*

### Utilization of Cognitive Behavioral Strategies

At the time of the 4-month follow-up, most patients were using a majority of the strategies to reduce depression, with 62% reporting use of four to six CB strategies. Twenty-five percent were using all six strategies; only 6% denied using any. The mean number of CB strategies used by subjects was significantly related to subject age ($r=-0.26$, $P=.001$), with the young group reporting a mean of 4.24 strategies, the middle group reporting 4.15, and the older group reporting 3.08.

There were several significant relationships between CBIS scores and patient self-reports on behavior at the 4-month follow-up. Patients were more likely to be using CB strategies if they had previously reported that their physicians had recommended CB techniques in the original prescription visit ($t=-3.149$, df$=127.3$, $P=.002$). Subjects with low CBIS scores reported using a mean of 3.48 (SD$=1.93$) strategies at the 4-month follow-up, while those with high scores reported a mean of 4.43 (SD$=1.57$) strategies. Patient-physician interactions about a specific strategy correlated significantly with the subsequent use of two CBIS strategies: planning pleasurable activities ($r=0.182$, $P=.023$) and discussions about planning activities to boost confidence ($r=0.238$, $P=.003$). Discussions about solving problems ($r=.141$, $P>0.05$) and discussions about identifying and challenging negative thoughts ($r=.0565$, $P>.05$) were not significantly associated with later use of these strategies.

## *Adherence to Prescribed Medications*

Twenty-seven percent of the subjects stopped using antidepressants within 30 days of the initial prescription visit. Multivariate analyses indicated that after controlling for covariates, higher CBIS scores were associated with higher adherence rates in the first 31 days following the initial prescription visit. Seventy-eight percent of the 71 subjects with high CBIS scores reported continued use of antidepressant medication for 31 or more days, while only 60% of the 68 subjects with low CBIS scores continued taking their medication ($\chi^2=4.79$, df $= 1$, $P=.03$). When we evaluated the CB strategies individually, planning

pleasurable activities, as a strategy suggested by the physician, was significantly related to adherence ($\chi^2$=7.0, df=1, $P$=.03) while the others were not significantly related.[21] Higher rates of utilizing cognitive behavioral techniques in the months following the prescription visit were also related to successful adherence during the first 31 days of pharmacotherapy ($t$=−2.223, $df$=66.9, $P$=.03), with adherent patients reporting using a mean of 4.12 strategies and nonadherent patients reporting using a mean of 3.34 strategies.

## Discussion

The present study is an attempt to examine the use of CB techniques by the primary care physician from the perspective of the patient. Patients typically reported that their physicians suggested two to five CB techniques in the antidepressant prescription visit. Patient age appeared to play a role in the occurrence of interactions about CB strategies, and in the actual use of CB strategies subsequent to the visit. More interactions occurred with younger patients than with older patients, and after the visit, younger patients utilized more strategies than did older patients. This age difference in rates of discussing CB strategies was not attributable to either depression severity or physician age. One possible explanation for this trend is that younger patients may accept the diagnosis of depression more readily and be more interested in psychological treatments for depression. Increased patient acceptance of diagnosis and sophistication about treatment options may provoke discussion of CB and other psychological treatments in the primary care visit. It is also possible that younger patients are engaging in more CB techniques before making a primary care visit concerning depression.

Slightly more than one half of the depressed primary care patients in the present study reported discussions about seeking counseling during the antidepressant prescription visit. Increased severity and lack of chronicity were associated with a greater likelihood of discussing counseling as a treatment option. This finding may suggest that physicians are discriminating between levels of severity among depressed patients and responding with more appropriate treatment planning. That older physicians were less likely to discuss counseling with their patients may be related to the differences in training between older and younger physicians, the tendency of older physicians to have older patients, the length and strength of the patient-physician relationship, or a combination of these factors.

The present study has several limitations. First, to measure cognitive behavioral interventions, we relied on patient self-report, the validity of which is unknown. Patient knowledge of and previous use of CB strategies may significantly influence not only the occurrence of interactions about these strategies with physicians but also the subsequent use of these strategies. Patient perception of the physician recommendation of counseling and CB techniques also may be influenced by the strength of the physician-patient relationship, ie, frequency of visits and duration of the relationship. Future studies in this area should formally assess and control the impact of the strength of the patient-physician alliance.[24]

Another limitation is that we measured a limited number of specific psychotherapeutic strategies rather than taking a more open-ended or comprehensive approach to measuring psychotherapeutic strategies. We also did not control for potential important process variables, such as length of the visit. Future studies should define and control process variables and wrestle with complex measurement and design issues. Such studies would enhance our understanding of how primary care physicians use psychological techniques and would help define the relationship between physician use of CB techniques and medication adherence by depressed patients.

Primary care physicians see more depressed patients than any other professional caregiver group in the United States.[25] The present study suggests that patients perceive physicians to be using CB techniques in conjunction with antidepressant therapy. It also shows that physician discussion of CB strategies was associated with patient use of these strategies and adherence to prescribed antidepressant therapy subsequent to the initial prescription visit. This finding suggests that primary care physicians' efforts to educate depressed patients about CB strategies may be worthwhile. Future researchers should examine the relation between the psychological aspects of treatment of depression (alone and in combination with pharmacological treatment) and patient outcomes in primary care. Additional information about the efficacy of these treatments in primary care may be obtained from randomized controlled trials, in which standardized, brief cognitive behavioral treatments are delivered by primary care physicians or mental health professionals, or both, working collaboratively in the primary care setting.

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