

Perceived Need and Help-Seeking in Adults With Mood, Anxiety, or Substance Use Disorders

Ramin Mojtabai, MD, PhD; Mark Olfson, MD, MPH; David Mechanic, PhD

Background: A majority of adults with common mental disorders do not seek professional help. To better understand why not, we examined the correlates of various stages of help-seeking, including perceived need for professional help, seeking such help, and from which professionals participants sought help.

Methods: The sample for this study comprised 1792 participants in the National Comorbidity Survey, conducted from 1990-1992, who were diagnosed with a 12-month DSM-III-R mood, anxiety, or substance disorder. In this sample, we assessed correlates of perceived need for professional help, seeking professional help among those with a need, and, among those who did seek professional help, seeking help from mental health professionals.

Results: Mood disorders, comorbid mood and anxiety disorders, and mental disorders associated with impair-

ment in role functioning or suicidality were strong predictors of perceived need. Psychopathology was also associated with the decision to seek help from mental health professionals, but not with the decision to seek professional help overall. After controlling for the nature and severity of psychopathology, various sociodemographic and attitudinal factors appeared to be associated with perception of need, help-seeking, and participants' choices of professionals.

Conclusions: Unmet need for mental health care is a serious public health problem. Meeting this need requires expanding our attention beyond psychopathology to various evaluations and decisions that affect help-seeking. Our results suggest the importance of attitude and behavior change strategies in reducing the gap between need and care.

Arch Gen Psychiatry. 2002;59:77-84

From the Department of Psychiatry, College of Physicians and Surgeons, Columbia University, and the New York State Psychiatric Institute, New York City (Drs Mojtabai and Olfson); and the Institute of Health, Health Care Policy, and Aging Research, Rutgers University, New Brunswick, NJ (Drs Mechanic and Olfson).

PSYCHIATRIC epidemiological studies repeatedly find that most adults with mental disorders receive no treatment.^{1,2} This finding poses a conceptual problem concerning the relationship between disorder and need for care and a public health problem concerning the need to define and address psychological, social, and economic barriers to care. One commonly used descriptive model,³ which explains service use in terms of the combined effects of predisposing factors (eg, gender, education, and health beliefs), enabling factors (eg, income, insurance, and geographic access), and severity of illness, has only modest power to predict whether individuals with mental disorders will seek help.⁴⁻⁶

Studies of illness identification and help-seeking generally follow 2 different streams. First, epidemiological surveys, such as the Epidemiologic Catchment Areas study⁷ and National Comorbidity Survey (NCS),⁸ are based on large represen-

tative samples. They use structured interviews to provide descriptive cross-sections of how disorder, help-seeking, and other factors are associated. In contrast, qualitative studies are typically based on limited samples but use more intensive assessments with less standardized measures.^{9,10} These studies make clear that the process of help-seeking has multiple stages.^{9,11,12} Individuals experience symptoms; attempt to evaluate the significance of their symptoms and the likely consequences; determine whether they have a problem that requires intervention and could benefit from treatment; evaluate the benefits and costs of various treatments; and choose which health care providers to consult. Different factors influence each of these evaluations and decisions. The 2 approaches have complementary strengths and weaknesses but are logistically difficult to combine.¹³

As previous studies indicate, a key variable when deciding whether to seek help is the perception of need.¹⁴⁻¹⁶ Many

PARTICIPANTS AND METHODS

SAMPLE

The NCS is a multistage stratified survey of 8089 individuals between the ages of 15 to 54 years who were selected from the noninstitutionalized household population of the 48 coterminous states.^{8,17} The survey was administered between September 1990 and February 1992 and had a response rate of 82.4%. Informed consent was obtained from all participants aged 18 years and older. For participants younger than 18 years, informed consent was obtained from parents.

The NCS interview was composed of 2 parts. Part 1, administered to all participants, included core diagnostic questions covering all diagnoses included in the NCS except for nonaffective psychoses and posttraumatic stress disorder. Part 2, which included questions about nonaffective psychoses, posttraumatic stress disorder, and service use, was administered to a probability subsample of 5877 participants (all those identified as having a lifetime disorder in part 1, all 15- to 24-year-olds, and a random subsample of other participants in part 1). In this study, we report data on 1792 participants in part 2 who met the criteria for at least 1 common mood, anxiety, or substance disorder. The data were weighted to adjust for differential probabilities of selection and differential nonresponse, and to approximate the cross-classification of the population distribution on a range of sociodemographic characteristics.^{8,18}

ASSESSMENTS

Help-seeking was defined in 2 ways. First, any voluntary contact with a professional for emotional or substance use problems was considered help-seeking. Contact was rated separately for different types of professionals, including formal providers (such as mental health workers, general practitioners, and other physicians) and informal providers (such as ministers, priests, spiritualists, and herbalists). However, separate analyses limited to formal health care providers produced similar results (data not shown). Second, any voluntary contact with psychiatrists, psychologists, or social workers was considered help-seeking from mental health professionals, even if the participant also reported contact with other professionals. The timing of the participant's last contact with each professional was also noted,

and we focused on contact made within the past 12 months.

We used a procedure described in earlier NCS analyses^{16,19} to assess perceived need for professional help. For participants who had not seen a professional in the past 12 months, perceived need was defined as a positive answer to the question: "Was there ever a time during the past 12 months when you felt that you might need to see a professional because of problems with your emotions or nerves or your use of alcohol or drugs?" For participants who had seen a professional, perceived need was assumed if they indicated that they had voluntarily contacted the professional. Although reports of perceived need are subject to memory and other distortions, limiting the recall period to the past 12 months may have reduced the likelihood of such errors.

Sociodemographic variables of age, race/ethnicity, and education analyzed in this study were defined in a similar way as in earlier NCS reports.^{8,17} With regard to insurance coverage, participants were divided into 3 categories: (1) those covered by Medicaid, welfare, or any other public assistance; (2) those with a health insurance plan other than Medicaid that covered all or part of the costs for mental health care outside of a hospital; and (3) those who were not covered by any plans, did not know if they were covered, or did not know the extent of their coverage. The categories are a crude indicator of insurance coverage that do not consider the exact extent of coverage, presence of co-insurance, or deductible amount, all of which can impose barriers to care. Furthermore, individuals who had used services may have been more likely to know about the extent of coverage. Therefore, the effect of insurance on service use may be a result, rather than a determinant, of utilization.

The diagnoses in NCS were based on a modified version of the World Health Organization's Composite International Diagnostic Interview (CIDI). Based on information from these interviews, *Diagnostic and Statistical Manual of Mental Disorders, Revised Third Edition (DSM-III-R)*²⁰ lifetime and 12-month diagnoses were generated with the CIDI diagnostic program. Data presented in this study are based on the 12-month diagnoses, and 12 such diagnoses, grouped in 3 categories, were used in this study. The categories were (1) mood disorders, including major depression and dysthymia; (2) anxiety disorders, including generalized anxiety disorder, panic disorder, simple phobia, social phobia, agoraphobia with or without panic, and posttraumatic stress disorder; and (3) substance use disorders, including alcohol abuse, nonalcohol drug abuse, alcohol dependence, and

who have mental health problems do not think they need treatment because they believe the symptoms are temporary or not serious. Alternatively, individuals may not perceive a need because they do not recognize their problem as a mental health problem, do not know that appropriate help is available, believe that treatment will not help, do not find services accessible, are embarrassed about seeking help, fear stigmatization, or, in the case of severe psychotic disorders, lack insight into the pathological nature of their symptoms. In short, what appears to be a simple objective report of perceived need is influenced by the social context and the decisions people make in response to symptoms. Understanding how perceived need for professional help relates to a constella-

tion of illness behavior variables helps structure programs that lead to appropriate care for those who need it most.

In this study, we used data from the NCS⁸ to examine correlates of different stages in the help-seeking process. We hypothesized that psychopathology is not the sole determinant of the help-seeking process and that various psychosocial variables also determine whether individuals seek help. To test this hypothesis, we examined correlates of perceived need among participants with psychiatric disorders, correlates of seeking professional help among those who perceived a need, and correlates of seeking help from mental health professionals among those who sought professional help.

nonalcohol drug dependence. These categories are rather broad and heterogeneous, particularly anxiety disorders, in which self-limited simple phobias are classified with the more serious panic and posttraumatic stress disorders. To assess the impact of such categorization, we repeated the analyses for diagnosis after excluding simple phobia (data not shown). The results of these additional analyses were quite similar to those reported here.

Bipolar disorder and schizophrenia were not included in this study because of their low prevalence and uncertain validity in the NCS.^{21,22} The reliability and validity of the CIDI diagnoses included in this study have been established in previous field trials²³ and in clinical reappraisal studies.²⁴⁻²⁷

The level of impairment was evaluated by asking participants to indicate how much their symptoms interfered with their lives and activities on a scale ranging from "not at all" to "a lot." Participants who stated symptoms caused "a lot" of interference with their lives and activities were considered severely impaired. This rating was done separately for every diagnosis, except for substance disorders and posttraumatic stress disorder.

Suicidality was assessed with 3 sets of questions that asked whether the participant had ever thought about, planned, or attempted suicide. If a question was answered affirmatively, follow-up questions assessed the timing of the event. Only reports of suicide ideation, plans, or attempts in the past 12 months were used in this analysis.

Physical health status was assessed with 2 ratings. First, participants were asked: "How would you rate your overall physical health? Is it excellent, very good, good, fair, or poor?" In this study, "poor" and "fair" self-ratings were combined and contrasted with the combined "good," "very good," and "excellent" ratings. The second physical health variable was based on a self-report of specific health conditions over the past 12 months. Participants were asked to indicate specific conditions from a list with 14 categories. The list included musculoskeletal (eg, severe arthritis), respiratory (eg, severe asthma, tuberculosis), cardiovascular (eg, heart attack), gastrointestinal (eg, ulcer), endocrine (eg, diabetes), and neurological (eg, multiple sclerosis, epilepsy) disorders as well as cancer, acquired immunodeficiency syndrome, and other conditions.

Attitudes toward mental health help-seeking were assessed by asking participants to respond to 3 hypothetical situations: (1) whether the participant would seek help when faced with a serious emotional problem; (2) how comfortable he or she would feel talking about personal problems

with a professional; and (3) how embarrassing it would be if friends knew about the professional help. The answers were ranked on a 4-point Likert scale (highly favorable to highly unfavorable). The dichotomous rating of attitudes was constructed by median split on the sum of the item scores.

Supportive relationships were assessed separately for spouse or partner, relatives, and friends. Each relationship was assessed with a 6-item scale. Items concerning participants' relationships with their spouses or partners asked how much the spouse really cared for the participant, understood the way he or she felt about things, and appreciated him or her; how much the participant could rely on the spouse or partner for help with serious problems, could openly talk to the spouse or partner about worries, and could relax around the spouse or partner. Parallel items asked about supportive relationships with relatives and friends among participants who had contact with these individuals. Responses to each item were coded from 1 (not at all) to 4 (a lot). The dichotomous rating of social support was based on median splits on summed scores.

Parental psychopathology was assessed with questions about symptoms of depression, anxiety, and substance use disorder. Each parent was addressed separately, and after each set of questions, participants were asked whether their parents ever sought professional care or were hospitalized for psychiatric problems.

DATA ANALYSES

We conducted 3 sets of binary logistic regression analyses. First, we examined correlates of perceived need. Second, we examined correlates of help-seeking among participants with a perceived need. Third, we examined correlates of seeking help from mental health professionals among participants who had sought professional help. Analyses were conducted once without any covariates (bivariate analyses) in the model and a second time adjusting for the psychiatric variables of diagnosis, impairment, and suicidality. A Cronbach α level of $P \leq .01$ was used for all analyses.

For the analyses reported here, we adopted a design-based approach, in which frequency weights, strata, and primary sampling units were used to adjust the parameter estimates and their variances.²⁸ The Taylor series linearization method, as implemented in the "svytab" and "svylogit" routines of Stata 6.0 (Stata Co, College Station, Tex), was used for these computations.

RESULTS

CORRELATES OF PERCEIVED NEED

Of the 1792 participants with one of the 12-month disorders, 32% perceived a need for professional help in a 12-month period. Distribution of perceived need was not uniform across diagnoses (**Table 1**). Participants with comorbid mood and anxiety disorders with or without comorbid substance disorders were about 3 times more likely than participants with anxiety disorders alone to perceive a need for professional help. Substance disorder without comorbidity was associated with the lowest

rate of perceived need. Furthermore, substance disorder comorbidity had different effects on mood disorders than on anxiety disorders. Participants with comorbid mood and substance disorders were less likely than participants with noncomorbid mood disorders to think they needed help. In contrast, participants with comorbid anxiety and substance disorders were more likely than those with noncomorbid anxiety disorders to perceive a need.

Suicidal ideation, plans, and attempts, and impairment were also strongly associated with perceived need for help (**Table 2**). In addition to psychiatric variables, positive attitude toward mental health help-seeking, physical conditions, marital loss, female gender, younger age group (15-24 years), maternal psychopathology, and in-

Table 1. Perceived Need and Help-Seeking Among Participants With Different Mental Disorders

Diagnosis	No.*	Perceived a Need for Help, %	Sought Professional Help, %	Sought Help From Mental Health Professionals, %
Mood disorder†	231	49	30	13
Anxiety disorder‡	648	21	14	4
Substance disorder§	386	14	7	3
Mood and anxiety disorders	253	56	32	14
Mood and substance disorders	124	35	16	8
Anxiety and substance disorders	48	37	18	11
Mood, anxiety, and substance disorders	102	63	34	25
Total	1792	32	19	8

*Numbers are weighted by sample weights.

†Includes major depression and dysthymia.

‡Includes generalized anxiety disorder, agoraphobia, panic disorder with or without agoraphobia, simple phobia, social phobia, and posttraumatic stress disorder.

§Includes alcohol and nonalcohol drug abuse and dependence.

surance coverage were positively correlated with perceived need for professional help, even after controlling for psychopathology (Table 2).

CORRELATES OF HELP-SEEKING

Of the 571 participants who perceived a need for professional help, 59% sought such help. None of the psychiatric variables that predicted perceived need were significant correlates of help-seeking. Older age (45-54 years), having a physical condition, and positive attitudes toward mental health help-seeking were associated with seeking professional help (Table 2).

CORRELATES OF HELP-SEEKING FROM MENTAL HEALTH PROFESSIONALS

Finally, of the 335 participants who sought professional help, 44% sought help from mental health professionals. The nature and severity of psychopathology appeared to be an important predictor of help-seeking from mental health professionals. Individuals with comorbid anxiety and substance disorders and comorbid mood, anxiety, and substance disorders were more likely to contact mental health professionals. The majority of the participants with comorbid mood, anxiety, and substance disorders who sought professional help sought help from mental health care providers (Table 1). In contrast, less than a third of all participants with noncomorbid anxiety disorders who sought help did so from mental health professionals. For the analyses of help-seeking from mental health professionals, the number of participants in some of the diagnostic groups was rather small. Male gender, positive attitudes toward professional help, and insurance coverage were also associated with seeking help from mental health professionals among those who had sought professional help (Table 2).

COMMENT

In interpreting these results, the limitations of this study and the NCS should be considered. First, for participants who had seen a professional, perceived need was inferred if they reported that they had voluntarily sought

help. This measure of perceived need may not be as accurate as a direct question. However, it is reassuring that participants who perceived a need but did not seek care were indistinguishable from those who sought care with regard to the nature and severity of psychopathology, the strongest correlates of perceived need in our study. Second, our analyses were limited to individuals with an NCS diagnosis of a mental disorder. Another important question is the extent and correlates of perceived need and help-seeking among individuals who did not have a diagnosis. Additional analyses indicated that participants without diagnoses are less likely to perceive a need than participants with diagnoses (10% vs 32%). After perceiving a need, however, they are as likely to seek care (61% vs 59%), although they are less likely to seek care from mental health professionals (28% vs 44%). The correlates of perceived need were similar in subjects with and without diagnoses (data not shown). Thus, diagnosis is associated with perceived need and help-seeking from mental health professionals, but not with help-seeking in general after perceiving need. Third, both the assessment of perceived need and help-seeking in the NCS were based on 12-month recall. A shorter recall period might have produced more accurate results.

Previous studies of perceived need and help-seeking provide context for our findings.²⁹⁻³⁴ Of these, the Ontario Health Survey²⁹ used methods similar to the NCS. Comparison of the 2 surveys revealed that more people in the United States than in Ontario, Canada, perceived a need for help and used services. After controlling for perceived need, most of the between-country variations in service use disappeared. Thus, perceived need explains variations in service use across as well as within settings.

Similar to previous studies, we found higher rates of perceived need among women³⁰⁻³³; participants who were divorced, separated, or widowed^{30,31,33}; participants with physical problems³³; and younger participants.^{30,31,33} Like previous studies, we found no association between these variables and help-seeking after need was established^{30,31} and a higher likelihood of help-seeking after need was felt among the middle-aged.³⁰⁻³²

Few studies, primarily surveys done several decades ago,^{30,31} have examined perceived need for profes-

Table 2. Correlates of Perceived Need and Help-Seeking*

Variables	No.†	Sought Professional Help/Perceived a Need for Help (n = 571) vs Neither (n = 1221)		Sought Professional Help (n = 335) vs Perceived a Need for Help (n = 236)		Sought Help From Mental Health Professionals (n = 149) vs Other Professionals (n = 186)	
		Bivariate OR (99% CI)	Adjusted for Psychiatric Variables AOR (99% CI)	Bivariate OR (99% CI)	Adjusted for Psychiatric Variables AOR (99% CI)	Bivariate OR (99% CI)	Adjusted for Psychiatric Variables AOR (99% CI)
Sociodemographic Variables							
Gender							
Female	978	2.1 (1.5-3.1)	1.8 (1.2-2.8)	1.2 (0.8-1.8)	1.0 (0.6-1.6)	0.5 (0.2-0.9)	0.5 (0.3-1.0)
Male	814	1.0	1.0	1.0	1.0	1.0	1.0
Age, y							
15-24	560	0.6 (0.4-0.9)	0.5 (0.3-0.8)	1.1 (0.6-2.2)	1.1 (0.6-2.0)	0.9 (0.4-2.1)	0.6 (0.3-1.5)
25-34	559	1.0	1.0	1.0	1.0	1.0	1.0
35-44	433	1.1 (0.8-1.6)	1.0 (0.7-1.5)	1.8 (0.9-3.8)	1.8 (0.9-3.8)	1.6 (0.7-3.8)	1.5 (0.6-3.7)
45-54	240	1.0 (0.7-1.6)	0.9 (0.5-1.6)	2.8 (1.3-5.7)	2.6 (1.3-5.4)	1.3 (0.6-3.0)	1.2 (0.6-2.7)
Race/ethnicity							
White	1380	1.0	1.0	1.0	1.0	1.0	1.0
African American	176	1.3 (0.7-2.2)	1.2 (0.6-2.4)	1.2 (0.5-3.2)	1.2 (0.5-3.2)	0.5 (0.1-1.5)	0.5 (0.2-1.9)
Hispanic	175	0.9 (0.6-1.2)	0.7 (0.5-1.1)	0.7 (0.3-1.7)	0.7 (0.3-1.6)	0.4 (0.1-1.2)	0.3 (0.1-1.5)
Other	61	1.0 (0.4-2.5)	0.9 (0.3-2.5)	0.7 (0.2-3.2)	0.6 (0.1-3.1)	0.7 (0.2-3.5)	1.0 (0.1-7.3)
Marital status							
Married/living as married	965	1.0	1.0	1.0	1.0	1.0	1.0
Divorced/separated/widowed	234	2.4 (1.5-3.7)	1.9 (1.2-3.1)	0.9 (0.5-1.7)	1.0 (0.5-1.9)	1.3 (0.5-3.2)	1.1 (0.5-2.6)
Never married	593	0.7 (0.5-1.1)	0.6 (0.4-0.9)	1.1 (0.6-1.8)	1.1 (0.7-1.9)	1.0 (0.5-2.3)	0.9 (0.4-1.7)
Education, y							
0-11	479	1.0 (0.6-1.4)	0.8 (0.5-1.3)	0.7 (0.4-1.4)	0.7 (0.4-1.4)	0.9 (0.4-2.5)	0.8 (0.3-1.9)
12	680	1.0	1.0	1.0	1.0	1.0	1.0
13-15	399	1.2 (0.7-1.9)	1.2 (0.7-1.9)	1.2 (0.6-2.6)	1.2 (0.6-2.5)	0.9 (0.4-2.0)	1.0 (0.4-2.4)
≥16	234	1.2 (0.7-1.9)	1.3 (0.7-2.2)	1.0 (0.4-2.4)	1.0 (0.4-2.3)	1.6 (0.6-4.1)	1.8 (0.7-4.9)
Yearly household income, \$							
0-19999	585	1.0 (0.6-1.4)	0.8 (0.6-1.2)	0.7 (0.4-1.3)	0.7 (0.4-1.4)	0.7 (0.3-1.8)	0.7 (0.2-1.9)
20000-34999	422	0.9 (0.7-1.3)	0.8 (0.6-1.1)	0.8 (0.4-1.5)	0.8 (0.4-1.4)	0.7 (0.4-1.5)	0.8 (0.4-1.6)
35000-69999	581	1.0	1.0	1.0	1.0	1.0	1.0
≥70000	204	0.8 (0.5-1.5)	0.8 (0.5-1.4)	0.9 (0.3-2.6)	0.8 (0.3-2.2)	0.9 (0.3-2.2)	1.0 (0.4-2.7)
Insurance							
Medicaid	140	1.8 (1.0-3.2)	1.5 (0.7-3.1)	0.7 (0.3-1.6)	0.7 (0.4-1.5)	1.2 (0.4-3.7)	1.0 (0.3-3.7)
Other	723	1.5 (1.0-2.2)	1.6 (1.1-2.4)	1.5 (1.0-2.3)	1.5 (1.0-2.2)	2.1 (1.1-4.1)	2.4 (1.2-4.9)
No insurance/no information	929	1.0	1.0	1.0	1.0	1.0	1.0
Psychiatric Variables							
Diagnosis (12 mo)							
Mood disorder‡	231	3.5 (1.9-6.3)	...	0.9 (0.3-2.3)	...	1.6 (0.7-3.6)	...
Anxiety disorder§	648	1.0	...	1.0	...	1.0	...
Substance disorder	386	0.6 (0.4-1.0)	...	0.5 (0.2-1.4)	...	1.1 (0.3-5.0)	...
Mood and anxiety disorders	253	4.7 (2.5-8.9)	...	0.7 (0.3-1.7)	...	1.7 (0.8-4.0)	...
Mood and substance disorders	124	2.1 (0.8-6.0)	...	0.4 (0.1-1.1)	...	2.4 (0.4-14.6)	...
Anxiety and substance disorders	48	2.0 (1.1-3.6)	...	0.6 (0.2-1.6)	...	4.1 (1.0-17.5)	...
Mood, anxiety, and substance disorders	102	6.4 (3.0-13.5)	...	0.6 (0.2-1.6)	...	6.4 (1.6-25.0)	...
Severe impairment							
Y	610	2.9 (2.2-3.9)	...	1.1 (0.7-1.8)	...	1.8 (0.8-4.0)	...
N	1182	1.0	...	1.0	...	1.0	...
Suicide ideation, plan, or attempt in the past year							
Y	153	4.1 (2.6-6.4)	...	1.1 (0.6-1.9)	...	2.4 (1.0-5.5)	...
N	1639	1.0	...	1.0	...	1.0	...

(continued)

sional help in the US population. Some more recent studies of service use have also noted relationships between education or minority status and the likelihood of mental health visits.^{35,36} Unlike these studies, we did not find

perceived need or help-seeking associated with education, race, or income. Most previous analyses were based on general population samples, not specifically persons with psychiatric diagnoses. It is noteworthy, however,

Table 2. Correlates of Perceived Need and Help-Seeking* (cont)

Variables	No.†	Sought Professional Help/Perceived a Need for Help (n = 571) vs Neither (n = 1221)		Sought Professional Help (n = 335) vs Perceived a Need for Help (n = 236)		Sought Help From Mental Health Professionals (n = 149) vs Other Professionals (n = 186)	
		Bivariate OR (99% CI)	Adjusted for Psychiatric Variables AOR (99% CI)	Bivariate OR (99% CI)	Adjusted for Psychiatric Variables AOR (99% CI)	Bivariate OR (99% CI)	Adjusted for Psychiatric Variables AOR (99% CI)
Physical Health							
Self-rating							
Poor/fair	262	2.1 (1.4-3.3)	1.6 (1.0-2.7)	1.0 (0.6-1.9)	1.1 (0.6-1.9)	0.9 (0.4-1.8)	0.9 (0.5-1.5)
Good/very good/excellent	1530	1.0	1.0	1.0	1.0	1.0	1.0
Physical condition, past 12 mo							
≥1	703	1.9 (1.4-2.5)	1.5 (1.1-2.1)	1.5 (1.0-2.4)	1.5 (1.0-2.3)	0.9 (0.4-1.9)	0.9 (0.5-1.8)
None	1089	1.0	1.0	1.0	1.0	1.0	1.0
Attitudes							
Attitudes toward mental health help-seeking							
Positive	636	2.4 (1.8-3.3)	2.2 (1.6-3.2)	2.4 (1.4-4.1)	2.4 (1.4-4.1)	2.1 (1.0-4.3)	2.3 (1.1-4.9)
Not positive	1156	1.0	1.0	1.0	1.0	1.0	1.0
Social Support							
Spouse							
Supportive	348	0.6 (0.4-0.9)	0.7 (0.5-1.1)	1.2 (0.6-2.6)	1.2 (0.6-2.6)	1.0 (0.4-2.5)	1.1 (0.5-2.5)
Not supportive/not married	1444	1.0	1.0	1.0	1.0	1.0	1.0
Relatives							
Supportive	544	0.8 (0.6-1.2)	1.0 (0.7-1.4)	1.3 (0.7-2.3)	1.3 (0.8-2.2)	0.9 (0.5-1.6)	0.9 (0.5-1.7)
Not supportive/not married	1248	1.0	1.0	1.0	1.0	1.0	1.0
Friends							
Supportive	819	1.0 (0.7-1.3)	1.1 (0.8-1.5)	1.1 (0.7-2.0)	1.1 (0.6-1.9)	0.8 (0.4-1.6)	0.8 (0.4-1.5)
Not supportive/no contact	973	1.0	1.0	1.0	1.0	1.0	1.0
Parental Psychopathology							
Mother had mood, anxiety, or substance disorder							
Y	851	2.2 (1.8-2.8)	1.6 (1.3-2.1)	0.7 (0.4-1.2)	0.7 (0.4-1.2)	1.2 (0.7-2.1)	1.0 (0.6-1.9)
N	941	1.0	1.0	1.0	1.0	1.0	1.0
Mother sought help/was hospitalized for mood, anxiety, or substance disorder							
Y	318	1.4 (1.0-2.0)	1.1 (0.7-1.7)	1.1 (0.6-2.0)	1.1 (0.6-2.0)	1.4 (0.7-2.9)	1.2 (0.6-2.5)
N	1474	1.0	1.0	1.0	1.0	1.0	1.0
Father had mood, anxiety, or substance disorder							
Y	814	1.5 (1.1-2.1)	1.3 (0.9-1.9)	0.8 (0.5-1.3)	0.8 (0.4-1.4)	1.5 (0.9-2.6)	1.4 (0.8-2.5)
N	978	1.0	1.0	1.0	1.0	1.0	1.0
Father sought help/was hospitalized for mood, anxiety, or substance disorder							
Y	203	1.7 (1.0-3.0)	1.5 (0.8-2.9)	0.8 (0.4-1.5)	0.8 (0.4-1.5)	1.0 (0.5-2.1)	0.9 (0.4-2.0)
N	1589	1.0	1.0	1.0	1.0	1.0	1.0

*Boldface type indicates statistically significant results at $P < .01$; CI, confidence interval; OR, odds ratio; AOR, adjusted odds ratio; and ellipses, not applicable.

†Numbers are weighted by sample weights.

‡Includes major depression and dysthymia.

§Includes generalized anxiety disorder, agoraphobia, panic disorder with or without agoraphobia, simple phobia, social phobia, and posttraumatic stress disorder.

||Includes alcohol and nonalcohol drug abuse and dependence.

that recent analyses of a 1997-1998 US survey also revealed educational disparities in service use in a sample of individuals with mood and anxiety disorders.³⁷

We also found higher rates of perceived need among participants with a maternal history of mental illness. This finding may reflect increased recognition of mental illness among the offspring of parents with psychiatric disorders or less willingness to rely on informal support networks as a result of childhood experiences.

Interestingly, few of the correlates of perceived need predicted help-seeking among individuals who per-

ceived a need. The nonsignificant effects of psychiatric variables are, perhaps, as noteworthy as the significant effects. After the need for professional help is perceived, the nature and severity of psychopathology do not affect the decision to seek help. The major determinants of help-seeking among individuals with a perceived need for professional help are sociodemographic and attitudinal.

The nature and severity of psychopathology, however, did affect the choice of care providers. Individuals with more severe comorbid disorders³⁸ were more likely to seek care from mental health professionals. This sug-

gests progress toward a targeted care system in which the more severely ill seek help from the more specialized professionals and the less severely ill from nonspecialized professionals.

One of the explanations proposed for the mismatch between the rates of mental disorders in the community and rates of help-seeking is that the rates of disorders are exaggerated and do not reflect the true need for care.³⁹ The results of the present study provide partial support for this hypothesis. A majority of individuals with less severe or impairing psychopathology may have recognized the self-limited nature of their problems and did not perceive a need for professional help.

However, many of the individuals with disorders who do not perceive a need experience distress and impairment and could potentially benefit from professional help. In this sample, for example, 26% of participants who met the criteria for 1 of the disorders in the study but who did not perceive a need for professional help reported severe impairment in their daily activities. Furthermore, about 5% reported suicidal ideation, plans, or attempts during the past year. Thus, experiencing a need for professional help is not a direct response to distress and impairment, and even after controlling for distress and impairment, various sociodemographic and attitudinal factors affect both perceived need and help-seeking. The effects of these sociodemographic and attitudinal factors reflect the complex evaluations and decisions that characterize "illness behavior."⁴⁰

A model of help-seeking as a series of stages,^{11,41,42} as illustrated here, can inform interventions that seek to achieve a better correspondence between need and use of appropriate services. Strategies aimed at changing attitudes and motivating help-seeking are essential for encouraging persons with disabling conditions who do not perceive a need for professional care to use services. There is some limited evidence that screening and targeted educational campaigns affect attitudes⁴³⁻⁴⁵ and help-seeking behavior.⁴⁶⁻⁴⁸ However, we believe that it is essential to go beyond such efforts and seek to integrate motivational and cognitive aspects of behavior change with specific instructional plans.^{49,50}

Results from our study also point to some groups that are less likely to express a need for professional help when experiencing psychiatric problems. Two such groups that could be the target of educational interventions are younger individuals and men. Educational programs specifically designed for schools have had promising results.^{44,51} Similar programs could be developed for male-dominated work environments, such as the military.

For individuals who do perceive a need, a more accepting attitude toward professional help may facilitate help-seeking. Many of the barriers to care at this stage, however, are objective barriers such as financial problems or the time costs of care. Intervention at this stage, therefore, may require large-scale policy initiatives. Of the NCS participants who had perceived a need but not sought care, 39% said that professional care was too expensive, 28% that their health insurance would not cover it, and 30% that it would take too much time or be too inconvenient.

Finally, our results echo earlier general population surveys such as the Midtown Manhattan Study of the

1950s, which estimated that the majority of individuals with serious mental health problems were not receiving care from mental health professionals.⁵² Although the rates of professional care for mental illness have increased impressively since then, unmet need for care still remains a large public health problem.

Accepted for publication June 26, 2001.

This study was supported in part by a Young Investigator Award from the National Alliance for Research in Schizophrenia and Depression, Great Neck, NY (Dr Mojtabai); and grants MH01754 (Dr Mojtabai), MH56490 (Dr Olsson), and MH43450 (Dr Mechanic) from the National Institute of Mental Health, Bethesda, Md. The NCS is supported by grants R01 MWD46376 and R01 MH49098 from the National Institute of Mental Health; a supplement to grant R01 MWD46376 from the National Institute of Drug Abuse, Bethesda; and grant 90135190 from the William T. Grant Foundation, New York, NY.

The Principal Investigator of the NCS is Ronald Kessler, Harvard Medical School, Cambridge, Mass. Collaborating NCS sites and investigators are: Addiction Research Foundation, Toronto, Ontario (Robin Room); Duke University Medical Center, Durham, NC (Dan Blazer and Marvin Swartz); Harvard Medical School (Richard Frank and Ronald Kessler); Johns Hopkins University, Baltimore, Md (James Anthony, William Eaton, and Philip Leaf); Max-Planck Institute of Psychiatry, München, Germany (Hans-Ulrich Wittchen); Medical College of Virginia, Richmond (Kenneth Kendler); University of Miami, Miami, Fla (R. Jay Turner); University of Michigan, Ann Arbor (Lloyd Johnston and Roderick Little); New York University, New York, NY (Patrick Shrout); State University of New York at Stony Brook (Evelyn Bromet); Washington University School of Medicine, St Louis, Mo (Linda Cottler and Andrew Heath).

Corresponding author and reprints: Ramin Mojtabai, MD, PhD, 200 Haven Ave, Apt 6P, New York, NY 10033 (e-mail: rm322@columbia.edu).

REFERENCES

1. Regier DA, Narrow WE, Rae DS, Manderscheid RW, Locke BZ, Goodwin FK. The de facto US mental and addictive disorders system service: epidemiologic catchment area prospective 1-year prevalence rates of disorders and services. *Arch Gen Psychiatry*. 1993;50:85-94.
2. Kessler RC, Zhao S, Katz SJ, Kouzis AC, Frank RG, Edlund M, Leaf P. Past-year use of outpatient services for psychiatric problems in the national comorbidity survey. *Am J Psychiatry*. 1999;156:115-123.
3. Anderson R, Newman JF. Societal and individual determinants of medical care utilization in the United States. *Milbank Q*. 1973;51:95-124.
4. Mechanic D. Correlates of physician utilization: why do major multivariate studies of physician utilization find trivial psychosocial and organizational effects? *J Health Soc Behav*. 1979;20:387-396.
5. Leaf PJ, Bruce ML, Tischler GL, Freeman DH, Weissman MM, Myers JK. Factors affecting the utilization of specialty and general medical mental health services. *Med Care*. 1988;26:9-26.
6. Rickwood DJ, Braithwaite VA. Social-psychological factors affecting help-seeking for emotional problems. *Soc Sci Med*. 1994;39:563-572.
7. Robins LN, Regier DA. *Psychiatric Disorders in America: The Epidemiological Catchment Area Study*. New York, NY: Free Press; 1991.
8. Kessler RC, McGonagle KA, Zhao S, Nelson CB, Hughes M, Eshleman S, Wittchen HU, Kendler KS. Lifetime and 12-month prevalence of DSM-III-R psychiatric disorders in the United States: results from the National Comorbidity Survey. *Arch Gen Psychiatry*. 1994;51:8-19.
9. Kadushin C. *Why People Go to Psychiatrists*. New York, NY: Atherton Press; 1969.
10. Pescosolido BA, Gardner CB, Lubell KM. How people get into mental health ser-

- vices: stories of choice, coercion, and "muddling through" from "first-timers." *Soc Sci Med*. 1998;46:275-286.
11. Goldberg D, Huxley P. *Mental Health in the Community: The Pathways to Psychiatric Care*. London, England: Tavistock Publications; 1980.
 12. Einbinder LC, Schulman KA. The effect of race on the referral process of invasive cardiac procedures. *Med Care Res Rev*. 2000;57(suppl 1):162-180.
 13. Mechanic D. Medical sociology: some tensions among theory, method, and substance. *J Health Soc Behav*. 1989;30:147-160.
 14. Blumenthal R, Endicott J. Barriers to seeking treatment for major depression. *Depress Anxiety*. 1996;4:273-278.
 15. Yokopenic PA, Clark VA, Aneshensel CS. Depression, problem recognition, and professional consultation. *J Nerv Ment Dis*. 1983;171:15-23.
 16. Katz SJ, Kessler RC, Frank RG, Leaf P, Lin E. Mental health care use, morbidity, and socioeconomic status in the United States and Ontario. *Inquiry*. 1997;34:38-49.
 17. Kessler RC, Anthony JC, Blazer DG, Bromet E, Eaton WW, Kendler K, Swartz M, Wittchen HU, Zhao S. The US National Comorbidity Survey: overview and future directions. *Epidemiol Psychiatr Soc*. 1997;6:4-16.
 18. Little RJA, Lewitzky S, Heeringa S, Lepkowski J, Kessler RC. Assessment of weighting methodology for the National Comorbidity Survey. *Am J Epidemiol*. 1997;146:439-449.
 19. Kessler RC, Frank RG, Edlund M, Katz SJ, Lin E, Leaf P. Differences in the use of psychiatric outpatient service between the United States and Ontario. *N Engl J Med*. 1997;336:551-557.
 20. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders, Revised Third Edition*. Washington, DC: American Psychiatric Association; 1987.
 21. Kessler RC, Rubinow DR, Holmes C, Abelson JM, Zhao S. The epidemiology of DSM-III-R bipolar I disorder in a general population survey. *Psychol Med*. 1997;27:1079-1089.
 22. Kendler KS, Gallagher TJ, Abelson JM, Kessler RC. Lifetime prevalence, demographic risk factors, and diagnostic validity of nonaffective psychosis as assessed in a US community sample. *Arch Gen Psychiatry*. 1996;53:1022-1031.
 23. Wittchen HU. Reliability and validity studies of the WHO-Composite International Diagnostic Interview (CIDI): a critical review. *J Psychiatr Res*. 1994;28:57-84.
 24. Blazer DG, Kessler RC, McGonagle KA, Swartz MS. The prevalence and distribution of major depression in a national community sample: the National Comorbidity Survey. *J Psychiatr Res*. 1994;151:979-986.
 25. Warner LA, Kessler RC, Hughes M, Anthony JC, Nelson CB. Prevalence and correlates of drug use and dependence in the United States: results from the National Comorbidity Survey. *Arch Gen Psychiatry*. 1995;52:219-229.
 26. Wittchen HU, Kessler RC, Zhao S, Abelson J. Reliability and clinical validity of UM-CIDI DSM-III-R generalized anxiety disorder. *J Psychiatr Res*. 1995;29:95-110.
 27. Wittchen HU, Zhao S, Abelson JM, Abelson JL, Kessler RC. Reliability and procedural validity of UM-CIDI DSM-III-R phobic disorder. *Psychol Med*. 1996;26:1169-1177.
 28. Carlson BL. Software for statistical analysis of sample survey data. In: Armitage P, Carlton T, eds. *Encyclopedia of Biostatistics*. Vol 5. New York, NY: Wiley; 1998:4160-4167.
 29. Katz SJ, Kessler RC, Frank RG, Leaf P, Lin E, Edlund M. The use of outpatient mental health services in the United States and Ontario: the impact of mental morbidity and perceived need for care. *Am J Public Health*. 1997;87:1136-1143.
 30. Gurin G, Veroff J, Feld S. *Americans View their Mental Health*. New York, NY: Basic Books; 1960.
 31. Veroff J, Kulka RA, Douvan E. *Mental Health in America: Patterns of Help-Seeking from 1957 to 1976*. New York, NY: Basic Books; 1981.
 32. Lehtinen V, Joukamaa M, Jyrkinen E, Lahtela K, Raitasalo R, Maatela J, Aromaa A. Need for mental health services of the adult population in Finland: results from the Mini Finland Health Survey. *Acta Psychiatr Scand*. 1990;81:426-431.
 33. Rabinowitz J, Gross R, Feldman D. Correlates of a perceived need for mental health assistance and differences between those who do and do not seek help. *Soc Psychiatry Psychiatr Epidemiol*. 1999;34:141-146.
 34. Meadows G, Burgess P, Fossey E, Harvey C. Perceived need for mental health care: findings from the Australian National Survey of Mental Health and Well-Being. *Psychol Med*. 2000;30:645-656.
 35. Mechanic D, Angel R, Davies L. Risk and selection process between the general and the specialty mental health sectors. *J Health Soc Behav*. 1991;32:49-64.
 36. Keeler EB, Wells KB, Manning WG, Rumpel JD, Hanley JM. *The Demand for Episodes of Mental Health Services*. Santa Monica, Calif: RAND; 1986.
 37. Young AS, Klap R, Sherbourne CD, Wells KB. The quality of care for depressive and anxiety disorders in the United States. *Arch Gen Psychiatry*. 2001;58:55-61.
 38. Bakish D. The patient with comorbid depression and anxiety: the unmet need. *J Clin Psychiatry*. 1999;60(suppl 6):20-24.
 39. Regier DA, Kaelber CT, Rae DS, Farmer ME, Knauper B, Kessler RC, Norquist GS. Limitations of diagnostic criteria and assessment instruments for mental disorders. *Arch Gen Psychiatry*. 1998;55:109-115.
 40. Mechanic D. The epidemiology of illness behavior and its relationship to physical and psychological distress. In Mechanic D, ed. *Symptoms, Illness Behavior, and Help-Seeking*. New York, NY: Prodist; 1982:1-24.
 41. Greenley JR, Mechanic D. Social selection in seeking help for psychological problems. *J Health Soc Behav*. 1976;17:249-262.
 42. Greenley JR, Mechanic D, Cleary PD. Seeking help for psychological problems: a replication and extension. *Med Care*. 1987;25:1113-1128.
 43. Paykel ES, Hart D, Priest RG. Changes in public attitudes to depression during the Defeat Depression Campaign. *Br J Psychiatry*. 1998;173:519-522.
 44. Battaglia J, Coverdale JH, Bushong CP. Evaluation of a mental illness awareness week program in public schools. *Am J Psychiatry*. 1990;147:324-329.
 45. Jorm AF. Mental health literacy: public knowledge and beliefs about mental disorders. *Br J Psychiatry*. 2000;177:396-401.
 46. Stephenson J. Schizophrenia researchers striving for early detection and intervention. *JAMA*. 1999;281:1877-1878.
 47. Johannessen JO, Larson TK, McGlashan T, Vaglum P. Early intervention in psychosis: the TIPS project, a multi-center study in Scandinavia. In: Martindale B, Bateman A, eds. *Psychosis: Psychological Approaches and Their Effectiveness*. London, England: Gaskell; 2000:210-234.
 48. Greenfield SF, Reizes JM, Magruder KM, Muenz LR, Kopans B, Jacobs DG. Effectiveness of community-based screening for depression. *Am J Psychiatry*. 1997;154:1391-1397.
 49. Leventhal H, Diefenbach M, Leventhal EA. Illness cognition: using common sense to understand treatment adherence and affect cognition interactions. *Cogn Ther Res*. 1992;16:143-163.
 50. Leventhal H, Safer MA, Panagis DM. The impact of communications on the self-regulation of health beliefs, decisions, and behavior. *Health Educ Q*. 1983;10:3-29.
 51. Esters IG, Cooker PG, Ittenbach RF. Effects of a unit of instruction in mental health on rural adolescents' conceptions of mental illness and attitudes about seeking help. *Adolescence*. 1998;33:469-476.
 52. Srole L, Langner TS, Michael ST, Kirkpatrick P, Opler MK, Rennie TAC. *Mental Health in the Metropolis: The Midtown Manhattan Study*. New York, NY: New York University Press; 1978.