

# Patients with Personality Disorders: Functional Status, Health Care Utilization, and Satisfaction with Care

William J. Hueston, MD; Arch G. Mainous III, PhD; and Rae Schilling, PsyD

Madison and Eau Claire, Wisconsin, and Lexington, Kentucky

**Background.** Personality disorders are believed to occur in approximately 10% of the adult population, yet they are rarely diagnosed in primary care settings. This study compares the functional status, health care utilization, and satisfaction with care for patients who were at high risk for a personality disorder with those who were at low risk.

**Methods.** Patients at high risk for personality disorders were identified using a standardized psychometric instrument, the Structured Clinical Inventory for DSM-III Axis II (SCID-II). After assigning patients to risk categories, responses were compared on the Medical Outcomes Study Short Form-36, the Beck Depression Inventory, the CAGE alcohol use questionnaire, and an adapted version of the RAND Patient Satisfaction Questionnaire.

**Results.** Patients who were at high risk for any personality disorder had lower functional status, higher risk for depression or alcohol abuse, and lower levels of satisfaction with care. These differences could not be explained by demographic or socioeconomic differences between

high- and low-risk patients. Being at high risk for specific personality disorders, such as borderline, schizoid, and dependent disorders, was associated with higher degrees of functional impairment and greater risk for depression and alcohol abuse. Patients at high risk for other disorders, such as obsessive-compulsive, narcissistic, and schizotypal, consistently showed no appreciable degree of impairment as compared with patients at low risk for any personality disorder. Medical care utilization was no higher when personality disorders were examined in aggregate, but a marked increase in utilization was noted among patients at high risk for histrionic and dependent disorders.

**Conclusions.** Among primary care patients, having a personality disorder is associated with lower functional status, lower satisfaction with health care, and higher risk for depression and alcohol abuse.

**Key words.** Primary health care; personality disorders; patient satisfaction; psychopathology. (*J Fam Pract* 1996; 42:54-60)

Fifty percent to 70% of patients with a positive history of mental illness lasting at least 1 year seek care from primary care physicians, and primary care physicians provide nearly one half of all mental health services in the United States.<sup>1-4</sup> These physicians, however, frequently focus on the physical aspects of their patients and may underdiagnose or de-emphasize the importance of patients' psychological or psychiatric status in their evaluations.<sup>5,6</sup> Since

emotional problems are often linked to medical complaints and utilization of medical resources,<sup>7,8</sup> focusing only on patients' physical conditions raises medical costs while decreasing the opportunity for prompt and effective intervention.

Psychopathology in primary care patients is not benign. A World Health Organization study focusing on common mental disorders in primary care found that after controlling for physical disease severity, psychopathology was consistently associated with increased disability.<sup>9</sup> Moreover, although physical disease severity had an independent association with disability, its relation with disability was weaker than its relation with psychopathology.<sup>9</sup> Other evidence has shown that depressed individuals have been found to utilize health care service

Submitted, revised September 19, 1995.

From the Department of Family Medicine/Eau Claire Family Practice Residency, University of Wisconsin-Madison (W.J.H., R.S.), and the Department of Family Practice, University of Kentucky, Lexington (A.G.M.). Requests for reprints should be addressed to William J. Hueston, MD, Eau Claire Family Practice, 807 South Farwell St, Eau Claire, WI 54701.

three times as often as nondepressed controls<sup>10</sup> and have increased reports of unexplained somatic symptoms.<sup>11</sup> Depressive illness is also associated with equal if not greater reduction in health-related functions and well-being than are chronic medical conditions, such as hypertension, diabetes, and heart disease.<sup>7</sup>

A similar potential for increased health care utilization and morbidity exists with other underrecognized mental health conditions. Among the more common psychiatric problems are personality disorders, which are reported to occur in up to 10% of unselected populations.<sup>12</sup> Personality disorders are known to have a higher prevalence among patients admitted to psychiatric hospitals,<sup>13,14</sup> but there is no estimate of how commonly these conditions complicate care received in outpatient settings or general medical wards.<sup>12</sup> Unfortunately, these patients are rarely diagnosed in primary care settings, but rather they are characterized as "difficult" or "problem" patients and often dismissed or "fired" from private practices.<sup>15</sup>

The morbidity associated with several of the personality disorders can be substantial and often underestimated.<sup>12</sup> Personality disorders affect the response of patients to psychiatric treatment<sup>16</sup> and increase the risk for suicide in some patients.<sup>17</sup> Personality traits of patients also alter physicians' responses to patients<sup>18</sup> as well as the likelihood of response to medical treatment.<sup>19</sup> Data from a Japanese population of mental health patients suggest that individuals with personality disorders have a greater degree of functional impairment, including in their social life.<sup>20</sup> These results imply that personality disorder is not a harmless condition and, when unrecognized by primary care physicians, may have an important negative impact on patients' lives.

## Methods

The intention of this study was to compare the functional status and other health indicators in primary care patients who were not currently diagnosed with a personality disorder but who were at high risk for personality disorders with those who were at low risk. To estimate the risk of a personality disorder, we used a standardized psychometric instrument, the Structured Clinical Interview for DSM-III Axis II (SCID-II),<sup>21</sup> which was developed to identify patients who were likely to have a personality disorder.<sup>22</sup> While the diagnosis of a personality disorder is based on the subjective assessment of a psychiatrist, the SCID-II was designed to predict which patients would be likely to be diagnosed with specific personality disorders.<sup>23</sup>

All patients for the study were recruited from the

practice at the Eau Claire Family Medical Center, a public-supported family practice residency training clinic in a small midwestern city. Because patients with personality disorders are often excluded from private practices, it was felt that this site would provide an overrepresentation of patients at high risk for personality disorders and thus enhance case finding. Only one patient had a personality disorder listed in the chronic or acute problem list. This patient was excluded from the study. To screen patients, research assistants approached adult patients during 3 half-days per week between August 1 and November 30, 1994. Because of language barriers and the cultural specificity of personality disorders, only English-speaking, nonimmigrant patients were asked to complete the survey.

Patients were provided with a self-administered screening questionnaire that took about 5 minutes to complete. This survey was used to identify patients who were likely to complete the longer, more detailed questionnaire. All patients who returned this initial questionnaire (n=202) were invited to participate in the longer survey.

Copies of the instrument were either mailed to patients who volunteered for the longer survey or given to them when they returned their initial questionnaire. The volunteers were told that this set of questions would take approximately 90 minutes to complete. Each patient completed the survey at home and returned it in a self-addressed stamped envelope.

## Variables

Personality disorders were defined based on the Structured Clinical Interview for DSM-III-R for personality disorders (SCID-II).<sup>21</sup> This instrument has been widely used as an indicator of personality disorders. There is no consensus regarding the best instrument for identification of Axis II disorders, and results for different instruments sometimes show poor agreement.<sup>22,23</sup> Compared with other instruments, however, the SCID-II has been shown to have good to excellent reliability to estimate risk for most personality disorders in a wide range of patients.<sup>23,24</sup>

Functional status was measured using the Medical Outcomes Study Short Form 36 (SF-36).<sup>25,26</sup> This measure has been extensively used to evaluate functional status in primary care populations,<sup>27</sup> and has been used to assess the affects of other psychopathology on functional status.<sup>7</sup> The SF-36 allows an overall measure of functional status and also provides subscales that reflect mental and physical components of health perceptions, role limitations due to health problems, and other characteristics of functional status.

Patient satisfaction was evaluated using the RAND

Patient Satisfaction Questionnaire as modified by Cherkin et al.<sup>28</sup> This modified satisfaction questionnaire contains 21 items that are grouped into subsections assessing the following characteristics of care: access to care, humanness of care, quality of care, and general satisfaction with care. Comorbid mental health conditions were measured using the Beck Depression Inventory<sup>29</sup> and the CAGE alcohol use questionnaire.<sup>30</sup>

In addition to the validated instruments above, several demographic and health care utilization variables were included. Demographic variables included patient's age, sex, marital status, number of children, employment status, and estimated annual income. Health care utilization was measured by inquiring about visits to a physician in the last 6 months, emergency room use in the last 6 months, and hospitalizations in the last year. In addition, the number of daily medications taken was also assessed. Responses to these questions were validated through a chart review of a subsample of respondents.

### Data Analysis

Of the 202 patients who returned screening questionnaires, 46% (93) volunteered for the study and returned completed instruments. Questions that were not answered by patients were deleted in numerators and denominators in all analyses. Data were entered into an epidemiologic database (Epi-Info, Version 5, USD, Inc, Stone Mountain, Ga). For comparison of categorical data, chi-square or Fisher's exact test were used for analysis for cases in which cell size was less than 5; continuous variables were analyzed using Student's *t* test for normally distributed variables with similar variances, and the Kruskal-Wallis H test was used when variances were not homogeneous. Statistical significance was defined as  $P < .05$ .

### Results

When the population who volunteered to complete the longer, more detailed questionnaire was compared with all patients who participated in the screening phase, we found no difference in sex composition, marital status, employment status, or number of children. Our final population was slightly older than the screening population ( $41.3 \pm 15.4$  vs  $34.2 \pm 3.9$  years,  $P = .007$ ) and more likely to have an annual income over \$30,000 ( $P = .02$ ).

Sixty-five (70%) of the 93 patients who returned completed questionnaires were at high risk for at least one personality disorder on the SCID-II. The most frequently occurring disorder observed in this population was obsessive-compulsive disorder ( $n = 49$ , 53%), with other disor-

Table 1. Prevalence of Positive Screening for Personality Disorders Among Patients Who Completed and Returned Study Instrument ( $n = 93$ )

Presence of Personality Disorder	Patients with Personality Disorder n (%)	Patients with Comorbid Disorder n (%)
No disorder	28 (30)	—
Any disorder	65 (70)	—
Specific disorders		
Obsessive-compulsive	49 (53)	43 (88)
Paranoid	26 (28)	26 (100)
Borderline	24 (26)	21 (88)
Avoidant	24 (26)	22 (92)
Schizotypal	23 (25)	21 (91)
Narcissist	22 (24)	22 (100)
Antisocial	20 (22)	16 (80)
Histrionic	13 (14)	13 (100)
Dependent	13 (14)	13 (100)
Aggressive	9 (10)	9 (100)
Schizoid	6 (6)	6 (100)

ders being noted less frequently (Table 1). The majority of patients who were at high risk for any one disorder also were found to be at high risk for other disorders (Table 1). Over one half of all patients at high risk for a personality disorder according to SCID-II criteria were also at high risk for two or more other disorders. The frequency with which each disorder occurred with comorbid disorders is shown in Table 1.

There were no significant differences between high- and low-risk patients with respect to mean age, sex distribution, marital status, employment status, or estimated annual income (Table 2). When comparisons of demographic and socioeconomic variables were performed for specific personality disorders, again no differences were

Table 2. Demographics of Patients Screening Positive for Personality Disorders

Patient Characteristics	Control Patients ( $n = 28$ )	Patient at High Risk for Personality Disorder ( $n = 65$ )
Mean age, y (SD)	39.7 (15.1)	44.7 (15.3)
Female, %	78	74
Married, %	56	42
Children, %	74	72
Employed, %	56	48
Annual income, %*		
<\$10,000	26	36
\$10,000–20,000	48	32
\$20,000–30,000	4	19
\$30,000–40,000	22	8
>\$40,000	0	5

\*Because of nonresponders,  $n = 23$  was the number of patients in the control group and  $n = 63$  for the personality disorder group.

SD denotes standard deviation.

NOTE:  $P = NS$  for differences between control patients and those at high risk for personality disorder.

Table 3. Functional Status Variables for Patients Screening Positive for Personality Disorders on the Short Form 36 (SF-36) Health Survey

SF-36 Concepts	Mean Score (SD)		P Value
	Control Patients (n=28)	Patients at High Risk for Personality Disorder (n=65)	
Mental Health	22.8 (4.8)	19.9 (5.0)	.01
Social Functioning	3.7 (1.2)	3.4 (1.2)	NS
Vitality	13.7 (4.6)	13.2 (4.4)	NS
Physical Functioning	27.0 (3.8)	24.3 (5.5)	.04
Role Limitation-Physical	2.7 (1.7)	2.3 (1.7)	NS
Role Limitation-Emotional	2.4 (1.0)	1.8 (1.2)	.03
Bodily Pain	6.9 (2.1)	6.4 (2.4)	NS
General Health Perception	20.6 (4.5)	18.4 (4.6)	.05
Total	102.0 (16.9)	89.4 (20.0)	.007

SD denotes standard deviation.

noted; however, the small number of patients who were at high risk for uncommon disorders limited the power for any comparisons.

### Functional Status and Personality Disorders

Patients at high risk for any personality disorder were noted to have lower overall SF-36 functional status scores and lower scores in particular subscales (Table 3). Specifically, high-risk patients were more likely to have lower general health perceptions and mental health subscores as well as lower scores in the physical functioning and role limitations subscales.

Total scores in functional status appeared to be

strongly influenced by an increased risk for more than one personality disorder. As the number of comorbid disorders increased, overall SF-36 scores declined. However, the scores of patients with only one or two disorders were not significantly different from those of the control patients. A sharp drop in total scores was noted only when more than two disorders coexisted in the same patients.

### Patient Satisfaction and Medical Utilization

Overall satisfaction with care also differed for patients at high risk for personality disorders as compared with controls (Table 4). In addition to lower levels of overall satisfaction, patients at high risk for a personality disorder

Table 4. Satisfaction with Care and Health Care Utilization for Patients with a Positive Screening Result for Personality Disorders

Patient Variables	Mean Score (SD)		P Value
	Control Patients (n=28)	Patients at High Risk for Personality Disorder (n=65)	
Satisfaction with care*			
Access to care	5.0 (2.0)	5.7 (1.8)	NS
Humanity of provider	10.6 (3.9)	12.8 (4.4)	.02
Quality of care	12.9 (3.9)	15.1 (3.9)	.02
General perceptions	9.2 (3.3)	10.8 (3.0)	.03
Health care utilization			
No. of physician visits	3.1 (3.0)	4.2 (2.9)	NS
No. of emergency room visits	0.6 (1.9)	0.6 (1.4)	NS
No. of medications	1.4 (1.7)	1.6 (2.3)	NS
Other measures			
Beck Depression Inventory†	5.2 (7.5)	15.1 (14.3)	<.001
CAGE questionnaire‡	0.2 (0.7)	0.8 (1.2)	.02

\*Scored on a scale of 0 to 90. A higher score reflects greater dissatisfaction with care.

†Scored on a scale of 0 to 62.

‡Score represents number of affirmative responses to the four CAGE questions, which are designed to assess the possibility of a drinking problem: (1) Have you ever felt you should cut down on or stop drinking? (2) Have people annoyed you by criticizing your drinking? (3) Have you felt guilty or bad about drinking? (4) Have you been waking up in the morning wanting an alcoholic drink (eyeopener)?

reported higher levels of dissatisfaction in the humaneness ( $P=.02$ ), quality of care ( $P=.02$ ), and general satisfaction ( $P=.03$ ) subscales. Unlike the finding for functional status in which scores were observed to decline with increasing numbers of comorbid personality disorders, patient satisfaction did not appear to decrease with increases in the number of coexisting personality disorders for which the patient was at high risk.

Compared with control patients, high-risk patients did not have a statistically significant difference in the number of physician visits during the previous six months (Table 4). No significant differences were found in use of emergency services or hospitalization in the previous 6 months or in daily medication use. However, patients at high risk for personality disorders were more likely to be taking an antidepressant drug (16% vs 4%,  $P=.01$ ). While anxiolytic drugs were more commonly prescribed for patients at high risk for personality disorders, use of these drugs was not statistically different in this population as compared with that of controls (13% vs 0%,  $P>.05$ ).

### *Personality Disorders and Psychiatric Comorbidities*

Patients at high risk for personality disorders were noted to have higher scores on the Beck Depression Inventory, indicating a higher risk for depression (Table 4). When patients were classified into levels of depression based on established cutoff values on the Beck scale,<sup>29</sup> a larger percentage of patients in the high-risk category scored within the range indicating depression compared with that of control patients (63% vs 30%,  $P=.02$ ) and in the range indicating severe depression (15% vs 4%,  $P=.005$ ).

In addition to a higher frequency of depression, individuals at high risk for personality disorders also were more likely to respond positively to one of the four components of the CAGE questionnaire, suggesting a higher risk for alcohol dependence.

### *Trends for Specific Personality Disorders*

When data were examined for specific personality disorders, trends were noted, suggesting that high-risk status for certain disorders was associated with higher medical utilization, lower functional status, and higher Beck Inventory scores. Patients at high risk for schizoid, dependent, and borderline disorders clustered in the highest medical utilization, lowest functional status, and highest Beck Inventory scores. Patients at high risk for histrionic personality disorder were also noted to have much higher utilization rates of outpatient services (Figure). Patients screening positive for narcissistic, schizotypal, antisocial,

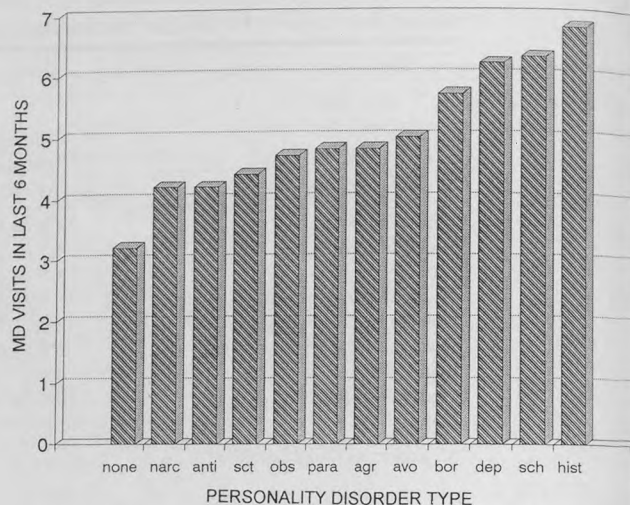


Figure. Correlation between positive screening result for an individual personality disorder and the number of visits to physician in the last 6 months. Key to personality disorders include: none, narcissistic (narc), antisocial (anti), schizotypal (sct), obsessive-compulsive (obs), paranoid (para), passive-aggressive (agr), avoidant (avo), borderline (bor), dependent (dep), schizoid (sch), and histrionic (hist).

and obsessive-compulsive disorders were consistently noted to have the least functional impairment, depression, and health care utilization.

When satisfaction was examined for patients at high risk for specific personality disorders, there appeared to be little association between personality disorder type and level of satisfaction. Except for those who were at high risk for dependent personality and whose level of satisfaction with their care was no different from that of control patients, patients who screened positive for all other personality disorders were clustered at lower degrees of satisfaction.

## Discussion

The results of this study indicate that personality disorders may have an important impact on the quality of health and satisfaction of primary care patients. Individuals at higher risk for personality disorders have a greater functional impairment, higher ambulatory care utilization, lower levels of satisfaction with health care, and greater prevalence of depression and alcohol dependence than do individuals who are unlikely to have personality disorders. Lower functional impairment, higher degree of depression, and increased health care utilization appear to be associated with increased risk of specific personality disorders. High-risk status for other disorders appears to have little or no effect on functional status or satisfaction. Thus,

high-risk status for personality disorders in general may not be as important as the specific disorder.

As noted earlier, personality disorders are rarely diagnosed by primary care physicians. Instead, patients with personality disorders in primary care settings are more often labeled as "difficult" or "problem" patients rather than given a diagnosis of an Axis II disorder.<sup>13</sup> This informal labeling may be undertaken because of the difficulty of making such diagnoses. Clinicians may be unwilling to diagnose personality disorder for fear of invoking a patient's anger. Second, many individuals do not fit neatly into the categories defined for individual personality disorders. As our results suggest, many patients have multiple disorders, and the overlapping of clinical diagnoses may be confusing to the primary care clinician. Third, personality disorders are difficult to identify in the context of an Axis I comorbidity.<sup>31</sup> As suggested in the present sample, personality disorders may be significantly associated with depression, making the diagnosis of an underlying personality disorder difficult in many patients.

The difficulty in diagnosing personality disorder notwithstanding, our data indicate the importance of Axis II conditions in the primary care setting. Individuals with personality disorders have greater overall functional impairment with specific detriments noted in physical functioning, mental health, emotional roles, and general perceptions of their functional status. Wilson and Cleary<sup>32</sup> contend that functional status is one of the most important health outcomes. Without recognition of personality disorders and their impact on functional status, it is unlikely that appropriate care will be provided for individuals with personality disorders. Thus, these individuals will continue to have poor outcomes.

Low levels of satisfaction with health care among individuals with personality disorders may reflect the failure of clinicians to recognize these disorders and appropriately address the issues that underlie patients' complaints. Alternatively, low satisfaction levels among patients could reflect physician dissatisfaction at caring for patients with such problems.<sup>33</sup> Recognition of personality disorders and appropriate care for these individuals could result in increased satisfaction for both physicians and patients. Future study of how a diagnosis of personality disorder affects patient and provider satisfaction with care would help further define this issue. Specific health plans whose providers do not appropriately diagnose and treat personality disorders may see lower levels of patient satisfaction as compared with plans whose providers successfully manage such patients.

The results of this study should be interpreted in light of several limitations. First, the sample was limited to a small number of individuals from a single practice. Those who chose to participate may have been different

from those who did not. Additionally, the demographics of our sample indicate that all the subjects were white, suggesting that these results may not be generalizable to other racial or ethnic groups in the United States. However, it should be noted that the classifications of personality disorders are culture-specific and are based on typical American behaviors. Further, the practice used to generate the sample was a training program that serves a predominantly lower-income population. While we selected this type of practice purposefully to increase the likelihood of identifying a large number of patients at high risk for personality disorders, other features of this practice, such as availability of providers and discontinuity of care, may have influenced our findings.

Second, self-administration of the SCID-II is intended to be followed by a psychiatric interview. Because routine psychiatric interviews for large groups of patients would be impractical, this study focused on those patients who screened positive for personality disorders without a confirmatory interview. Although this design does not conform to the exact process of the SCID-II, it does provide clinicians with a technique that is more manageable for screening. The lack of confirmatory interviews may result in decreased specificity for the SCID-II, potentially resulting in an artificially higher prevalence of personality disorders. It should be noted, however, that the possible misclassification of patients without personality disorders may be offset by that of patients *with* personality disorders.

Another potential limitation of this study is that the health care utilization variables used in this study may not be sensitive enough to reflect the medical resources respondents actually use. Because of recall limitations, we did not assess the number of radiological or laboratory procedures or the use of other ancillary services, such as physical therapy, that contribute to overall patient costs. Further investigation of the use of these tests and procedures in patients with personality disorders would help clarify this issue.

Finally, because the risk of depression was very high in the group also at risk for personality disorders, it is possible that the health outcomes measures examined in this study reflect depression rather than personality disorder. Evidence suggests, however, that patients with personality disorders are more likely to remain chronically depressed and be resistant to standard therapy.<sup>16</sup> If depression and personality disorders appear to interact, then recognition and treatment of a personality disorder may influence the management of depression. In this case, recognition of an underlying personality disorder may still be important.

## Conclusions

This study suggests that personality disorders may have a significant impact on the health of primary care patients. Further population-based studies of primary care practices would be useful in determining how often patients in these settings are at high risk for unrecognized personality disorders. Even when the prevalence of personality disorders is not high in primary care practices, primary care physicians should be aware of these disorders so that these patients can be referred for definitive diagnosis and therapy aimed at improving patients' functional status, ambulatory care utilization, and satisfaction.

## References

- Regier DA, Goldberg ID, Taube CA. The de facto US mental health system: a public health perspective. *Arch Gen Psychiatry* 1978; 38:685-93.
- Kates N, Craven M, Webb S, Low J, Perry K. Case reviews in the family physician's office. *Can J Psychiatry* 1992; 37:2-6.
- Shapiro S, Skinner EA, Kessler LG, et al. Utilization of health and mental health services. *Arch Gen Psychiatry* 1983; 41:971-84.
- Wells KB, Manning WG, Duan N, et al. Use of outpatient mental health services by a general population with health insurance coverage. *Hosp Community Psychiatry* 1986; 11:1119-25.
- Neilson AC, Williams TA. Depression in ambulatory medical patients: prevalence by self-report questionnaire and recognition by nonpsychiatric physicians. *Arch Gen Psychiatry* 1980; 37:999-1004.
- Diamond EL, Epting R, Gage L. Estimating the prevalence of depression in family practice using variant methods. *J Fam Pract* 1987; 24:267-73.
- Wells KB, Stewart A, Hays RD, et al. The functioning and well-being of depressed patients: results from the Medical Outcomes Study. *JAMA* 1989; 262:914-9.
- Williamson HA. Clinical and demographic factors associated with high levels of depression symptoms. *Fam Med* 1989; 21:428-32.
- Ormel J, VonKorff M, Ustun TB, Pini S, Korten A, Oldehinkel T. Common mental disorders and disability across cultures: results from the WHO collaborative study on psychological problems in general health care. *JAMA* 1994; 272:1741-8.
- Regier DA, Hirschfield RMA, Goodwin FK, et al. The NIMH depression, awareness, recognition, and treatment program: structure, aims, and scientific basis. *Am J Psychiatry* 1988; 145:1351-7.
- Katon W, Sullivan MD. Depression and chronic medical illness. *J Clin Psychiatry* 1990; 51(6 suppl):3-11.
- Oldham JM. Personality disorders: current perspectives. *JAMA* 1994; 272:1770-6.
- Emerson J, Pankratz L, Joos S, Smith S. Personality disorders in problematic medical patients. *Psychosomatics* 1994; 35:469-73.
- Dahl AA. Some aspects of the *DSM-III* personality disorders illustrated by a consecutive sample of hospitalized patients. *Acta Psychiatr Scand* 1986; 73(suppl 328):61-6.
- Jackson HJ, Whiteside HL, Bates GW, Bell R, Rudd RP, Edwards J. Diagnosing personality disorders in psychiatric inpatients. *Acta Psychiatr Scand* 1991; 83:206-13.
- Reich JH, Vasile RG. Effects of personality disorders on the treatment outcome of Axis I conditions: an update. *J Nerv Mental Dis* 1993; 181:475-84.
- Stone MH. The fate of borderline patients. New York, NY: Guilford Press, 1990.
- Bindwell BG, Herbers JE, Kroenke K. Evaluating chest pain: the patient's presentation style alters the physician's diagnostic approach. *Arch Intern Med* 1993; 153:1191-5.
- Polatin PB, Kinney RK, Gatchel RJ, Lillo E, Mayer TG. Psychiatric illness and chronic low-back pain: the mind and the spine—which goes first? *Spine* 1993; 18:66-71.
- Nakao K, Gunderson JG, Phillips KA. Functional impairment in personality disorders. *J Pers Disord* 1992; 6:24-33.
- Spitzer RL, Williams JBW, Gibbon M, First MB. Structured Clinical Interview for DSM-III-R Personality Disorders (SCID-II, Version 1.0). Washington, DC: American Psychiatric Press, 1990.
- Perry JC. Problems and considerations in the valid assessment of personality disorders. *Am J Psychiatry* 1992; 149:1645-53.
- Zimmerman M. Diagnosing personality disorders. *Arch Gen Psychiatry* 1994; 51:225-45.
- Guthrie PC, Mobley BD. A comparison of the differential diagnostic efficiency of three personality disorder inventories. *J Clin Psychol* 1994; 50:656-65.
- Ware JE Jr, Sherbourne CD. The MOS 36-item short-form health survey (SF-36): I. Conceptual framework and item selection. *Med Care* 1992; 30:473-83.
- Brazier JE, Harper R, Jones NMB, et al. Validating the SF-36 health survey questionnaire: new outcome measure for primary care. *BMJ* 1992; 305:160-4.
- Nelson E, Conger B, Douglass R, Gephart D, et al. Functional health status levels of primary care patients. *JAMA* 1983; 249:3331-8.
- Cherkin DC, Hart LG, Rosenblatt RA. Patient satisfaction with family physicians and general internists: is there a difference? *J Fam Pract* 1990; 26:543-51.
- Beck AT, Beck RW. Screening depressed patients in family practice: a rapid technique. *Postgrad Med* 1972; 52:81-5.
- Mayfield D, McLeod G, Hall P. The CAGE questionnaire: validation of a new alcoholism screening instrument. *Am J Psychiatry* 1974; 131:1121-3.
- Reich JH, Green AI. Effect of personality disorders on the outcome of treatment. *J Nerv Ment Dis* 1991; 179:74-82.
- Wilson IB, Cleary PD. Linking clinical variables with health-related quality of life. A conceptual model of patient outcomes. *JAMA* 1995; 273:59-65.
- Schwenk TL, Marquez JT, Lefever D, Cohen M. Physician and patient determinants of difficult physician-patient relationships. *J Fam Pract* 1989; 28:59-63.