

# Use of Psychological Measures in Primary Care

Randy A. Sansone, MD; Michael W. Wiederman, PhD; Lori A. Sansone, MD

**Objective:** To determine the use of psychological measures among primary care physicians.

**Design:** Survey.

**Setting:** Primary care practices in Ohio.

**Subjects:** Active members of the Ohio Academy of Family Physicians.

**Interventions:** None.

**Main Outcome Measures:** Subjects' use "ever" and "during the past 12 months" of 11 psychological measures encountered in primary care settings.

**Results:** Approximately 80% of 521 respondents acknowledged having used 1 or more of the listed psychological measures in clinical practice. Of the measures listed, each was endorsed by some proportion of respondents. The majority of physicians who had ever used a particular measure had done so in the preceding 12 months. Compared with respondents who did not use psychological measures in practice, unique predictors for those who did were being relatively younger, female, and practicing in more densely populated areas.

**Conclusion:** Most family physicians have used psychological measures in clinical practice.

*Arch Fam Med. 1998;7:367-369*

A VARIETY of psychological measures are available to the primary care clinician for use in practice. Most of these measures are characterized by their ease of administration, scoring, and interpretation, as well as their reasonable validity and specificity. Given the prevalence of emotional problems reported by patients in primary care settings and concerns about effective recognition and treatment, these psychological tools represent an efficient means to screen for emotional disturbances and improve patient outcomes. Despite the potential value of these measures, there are no data on the actual utilization rates of psychological measures in the primary care setting.

## RESULTS

Although usable questionnaires were returned by 521 (28.6%) of 1828 active members, the effective sample size varies slightly with regard to any particular variable because of missing data. Respondents were 368 men and 142 women (11 failed to report sex). Age ranged from 27

to 83 years, with a mean of 44.57 years (SD=10.76). Among respondents, 420 (80.6%) completed a residency in family practice and 480 (92.1%) were board-certified in family medicine. Years in practice ranged from 0 to 52, with a mean of 15.59 years (SD=11.28). Regarding practice setting, 106 (20.3%) respondents indicated a solo practice, 274 (52.6%) a group/non-health maintenance organization (HMO) setting, 16 (3.1%) an HMO setting, 85 (16.3%) an academic setting, and 32 (6.1%) "other." Eight (1.5%) did not indicate practice setting. With regard to the average number of patients seen per month, 43 (8.3%) saw fewer than 100, 156 (30.0%) saw 100 to 300, 221 (40.5%) saw more than 300 and up to 500, and 94 (18.0%) saw more than 500 (data were missing for 17 respondents). With regard to the population of the local practice area, 122 (23.4%) reported fewer than 25 000, 100 (19.2%) reported 25 000 to 50 000, 59 (11.3%) reported 50 000 to 100 000, 59 (11.3%) reported 100 000 to 250 000, and 172 (33.0%) reported more than 250 000. The respondents closely mirror the general demographic composition of the Ohio Academy of Family Phy-

From the Departments of Psychiatry (Dr R. Sansone) and Family Practice (Dr L. Sansone), University of Oklahoma College of Medicine, Tulsa; and the Department of Psychological Science, Ball State University, Muncie, Ind (Dr Wiederman).

## SUBJECTS AND METHODS

Subjects were active members of the Ohio Academy of Family Physicians. At the time of this study, active members were 76.8% men and 23.1% women, with a mean age of 44.2 years.

Subjects were sent a cover letter and a 1-page survey. The cover letter explained the purpose of the study, described risks and benefits of participation, and affirmed anonymity of responses.

The survey consisted of 2 parts. The first part explored respondents' demographic background (eg, age, marital status, sex, specialty board eligibility and certification status, years in practice, type of practice arrangement, average number of patients seen per month and population density of the practice area). The second part of the survey consisted of a list of 11 psychological measures. Participants were asked if they had ever used any of the listed psychological measures and to estimate the number of times they had used an endorsed measure during the past 12 months. At the bottom of the survey, respondents were asked to indicate psychological measures they had used but were not listed on the survey. Although not included in the survey, a brief description of each listed psychological measure is provided in the **Table**.

Each survey packet contained an addressed and postmarked return envelope. A returned survey was assumed to indicate informed consent. This project was reviewed and approved by the Institutional Review Board of the University of Oklahoma College of Medicine, Tulsa.

sicians during the year of the survey according to sex distribution (Academy, 76.8% men, 23.1% women) and mean age (Academy, 44.2 years).

The percentages of respondents who reported ever having used any of the listed psychological measures is presented in the Table, as is the proportion of these respondents who indicated using an endorsed measure at least once during the preceding 12 months. For the entire sample, the average number of endorsed measures was 2.40 (SD=2.04; range, 0-11). Of those respondents who had used a particular psychological measure, most had done so within the preceding year.

### COMPARISON OF RESPONDENTS WHO HAD EVER VS NEVER USED PSYCHOLOGICAL MEASURES

Ninety-nine respondents (19%) had never used any of the listed psychological measures in clinical practice. Men (24.8%) were significantly more likely than women (7.4%) to report never having used any of the listed instruments ( $\chi^2=18.71$ ,  $P<.001$ ). With regard to practice setting, few respondents indicated working in an HMO setting; these respondents were collapsed with those who reported a group/non-HMO setting to form a new category we labeled *group practice*. Subsequently, physicians in solo practice were significantly more likely

**Proportion of Respondents Who Had Ever Used Each Psychological Measure and Those Who Had Recently Used Each Measure**

Measure (Use)	Percentage	
	Ever Used	Used During Preceding Year
Beck Depression Inventory <sup>1</sup> (depression)	37.4	78.4
Zung Self-Rating Depression Scale <sup>2</sup> (depression)	35.8	88.6
Geriatric Depression Scale <sup>3</sup> (depression in elderly persons)	17.2	84.9
Hamilton Rating Scale for Depression <sup>4</sup> (depression)	15.3	71.1
Yale-Brown Obsessive Compulsive Scale <sup>5</sup> (obsessive-compulsive symptoms)	3.5	77.8
Hamilton Rating Scale for Anxiety <sup>6</sup> (anxiety)	18.6	81.7
Primary Care Evaluation of Mental Disorders <sup>7</sup> (mood, anxiety, somatoform disorders, alcohol abuse/dependence, bulimia nervosa)	9.7	81.6
Symptom-Driven Diagnostic System for Primary Care <sup>8</sup> (obsessive-compulsive symptoms, panic, generalized anxiety disorders, alcohol abuse/dependence, major depression, suicidal ideation)	2.5	53.8
Global Deterioration Scale <sup>9</sup> (dementia)	3.9	65.0
Mini-Mental Status Examination <sup>10</sup> (cognitive functioning)	67.3	93.7
Connors Rating Scales <sup>11,12</sup> (attention deficit)	30.7	91.7

(31.0%) than physicians in group practice (18.1%) ( $\chi^2=7.21$ ,  $P<.01$ ) or academic settings (8.3%) ( $\chi^2=14.31$ ,  $P<.001$ ) to report never having used any of the instruments. Similarly, physicians in group practice were significantly less likely than physicians in academic settings to have never used any of the listed psychological measures ( $\chi^2=4.66$ ,  $P<.03$ ).

In examining other demographic variables, 210 respondents (40.3%) failed to answer the question regarding years in practice. We suspect that this was related to the layout of the item in the survey. However, we found that age and number of years in practice were highly correlated among those respondents who did report both ( $r=0.94$ ,  $P<.001$ ). Thus, instead of considering number of years in practice, we considered respondent age. Physicians who indicated that they had never used any of the instruments were significantly older (mean=51.34 years; SD=12.97) compared with those physicians who had used at least 1 of the listed psychological measures (mean=42.82 years; SD=9.40) ( $F_{1,492}=54.73$ ,  $P<.001$ ). Also, compared with physicians who had used at least 1 of the listed measures, those respondents who had never used any were practicing in less densely populated areas ( $F_{1,491}=8.66$ ,  $P<.004$ ), but were not seeing a greater number of patients ( $F_{1,483}=2.22$ ,  $P<.14$ ).

To ascertain which variables were uniquely predictive of ever having used any of the listed psychological measures, a logistic regression analysis was performed in which physician sex, age, type of practice setting (solo vs group or academic), and population density were entered simultaneously to predict ever having used any of

the listed measures (0=no, 1=yes). The resulting equation was statistically significant (model  $\chi^2_{4,478}=61.44$ ,  $P<.001$ ). After controlling for the effects of the other predictors, the only variables uniquely related ( $P<.05$ ) to ever having used any of the measures were physician age (partial  $r=-0.24$ ,  $P<.001$ ), sex (partial  $r=0.09$ ,  $P<.02$ ), and population density (partial  $r=0.08$ ,  $P<.03$ ). That is, after controlling for the other variables in the equation, physicians who were relatively younger, female, and practicing in more densely populated areas were most likely to ever (compared with never) have used any of the listed psychological measures.

#### ADDITIONAL ANALYSIS OF PHYSICIANS WHO HAD USED PSYCHOLOGICAL MEASURES

We also examined whether, among those who reported having used at least 1 of the listed measures, the mean number of different instruments ever used varied as a function of demographic or practice characteristics. The number of different instruments used was unrelated to population density ( $r=0.04$ ,  $P<.42$ ) or the typical number of patients seen ( $r=-0.03$ ,  $P<.50$ ), but was significantly related to physician age ( $r=-0.11$ ,  $P<.03$ ), with younger physicians using a greater number of different psychological measures compared with older physicians. The mean number of different measures ever used did not differ as a function of sex ( $F_{1,391}=.83$ ,  $P<.37$ ) or practice setting ( $F_{2,373}=1.86$ ,  $P<.16$ ).

#### USE OF OTHER PSYCHOLOGICAL MEASURES

At the end of the survey, respondents were asked to list any additional psychological measures that they had ever used. Only 30 (5.8%) listed 1 or more additional measures, for a total of 21 different psychological measures. Although some write-in responses were nonspecific (eg, "a panic scale"), the topics of anxiety, attention-deficit/hyperactivity disorder, and alcohol abuse accounted for the majority. Only 3 specific measures were written in by more than 2 respondents each: Michigan Alcoholism Screening Test (MAST), CAGE questionnaire, and the Zung Anxiety Scale.

#### COMMENT

Based on a 1-time mailing, the response rate in this study (28.5%) is comparable to the national average (25%) encountered in surveys of professionals.<sup>13</sup> However, in terms of generalizing from these data, we do not know whether, as compared with nonrespondents, respondents were more or less likely to use psychological measures in clinical practice. Another potential limitation of this study is the self-report design. With these cautions in mind, we draw the following tentative conclusions.

Most family physicians have used psychological measures in clinical practice. The majority of respondents ( $\approx 80\%$ ) have used at least 1 type of psychological measure in clinical practice. If ever used, the endorsed psychological measure is likely to have been used during the preceding 12 months. As a caveat, it is possible that respondents were simply more likely to recall (and thus endorse) measures they had used recently. Compared with those who do not use any psychological measures, the unique predictors for those who do are sex, age, and density of the practice area. When psychological measures are used in clinical practice, younger physicians tend to use more of them.

This study enhances our understanding of the use of psychological measures in the primary care setting. It is evident from the current study that family physicians, particularly those that are younger, female, and practicing in more densely populated areas, use psychological measures in their clinical practice. Research on the various factors that result in physician predilection for particular psychological measures would be an interesting area for future study, particularly for those developing such measures.

Accepted for publication June 17, 1997.

This project was supported by a grant from the Laureate Psychiatric Research Center, Tulsa, Okla.

Reprints: Randy A. Sansone, MD, Sycamore Primary Care Group, 2150 Leiter Rd, Miamisburg, OH 45342.

#### REFERENCES

1. Beck AT, Ward CH, Mendelson M, Mock J, Erbaugh J. An inventory for measuring depression. *Arch Gen Psychiatry*. 1961;4:561-571.
2. Zung WWK. A self-rating depression scale. *Arch Gen Psychiatry*. 1965;12:63-70.
3. Yesavage JA, Brink TL, Rose TL, Leirer VO. Development and validation of a geriatric depression screening scale: a preliminary report. *J Psychiatr Res*. 1983; 17:37-49.
4. Hamilton M. Development of a rating scale for primary depressive illness. *Br J Soc Clin Psychol*. 1967;6:278-296.
5. Goodman WK, Price LH, Rasmussen SA, et al. The Yale-Brown Obsessive Compulsive Scale. I: development, use, and reliability. *Arch Gen Psychiatry*. 1989; 46:1006-1011.
6. Hamilton M. The assessment of anxiety states by rating. *Br J Med Psychol*. 1959; 32:50-55.
7. Spitzer RL, Williams JBW, Kroenke K, et al. Utility of a new procedure for diagnosing mental disorders in primary care: the PRIME-MD 1000 study. *JAMA*. 1994; 272:1749-1756.
8. Broadhead WE, Leon AC, Weissman MM, et al. Development and validation of the SDDS-PC screen for multiple mental disorders in primary care. *Arch Fam Med*. 1995;4:211-219.
9. Reisberg B, Ferris SH, deLeon MJ, Crook T. The Global Deterioration Scale for assessment of primary degenerative dementia. *Am J Psychiatry*. 1982;139:1136-1139.
10. Folstein MF, Folstein SE, McHugh PR. Mini-Mental State: a practical method for grading the cognitive state of patients for the clinician. *J Psychiatr Res*. 1975; 12:189-198.
11. Barkley RA. *Hyperactive Children: A Handbook for Diagnosis and Treatment*. New York, NY: Guilford Press; 1981.
12. Connors CK. A teacher rating scale for use in drug studies with children. *Am J Psychiatry*. 1969;126:884-888.
13. Blashfield R, McElroy R. A benchmark analysis for personality disorder research: studies using clinicians. *J Personal Disord*. 1989;3:174-179.