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The GAD-7 scale was accurate for diagnosing generalised anxiety disorder

Spitzer RL, Kroenke K, Williams JB, *et al*. A brief measure for assessing generalised anxiety disorder: the GAD-7. *Arch Intern Med* 2006;**166**:1092–7.

Clinical impact ratings GP/FP/Mental health ★★★★★☆ Psychiatry ★★★★★☆

Q What is the diagnostic accuracy of the Generalised Anxiety Disorder (GAD)-7 scale?

METHODS



Design: blinded comparison of the GAD-7 scale with GAD criteria from the DSM-IV.



Setting: 13 family practices and 2 internal medicine clinics in the US.



Patients: a random sample of 965 out of 2739 patients 18–95 years of age (mean age 47 y, 65% women, 80% white) who completed a study questionnaire including the GAD-7 scale were evaluated with the diagnostic standard.



Description of test: the GAD-7 scale: patients rate answers (0 = not at all, 1 = several days, 2 = more than half the days, 3 = nearly every day) to 7 anxiety related questions; how often in the past 2 weeks they felt (1) nervous, anxious, or on edge; (2) easily annoyed or irritable; (3) afraid as if something awful might happen; (4) worried about different things; (5) restless and unable to sit still; (6) unable to stop or control worrying; or (7) had trouble relaxing (score range 0–15; 0–5 mild, 6–10 moderate, 11–15 severe).



Diagnostic standard: structured psychiatric telephone interviews by a mental health professional (PhD clinical psychologist or senior psychiatric social worker) based on the GAD section of the Structured Clinical Interview for DSM-IV within 1 week of completing the study questionnaire.



Outcomes: sensitivity, specificity, likelihood ratios, and the receiver operating characteristic (ROC) curve.

MAIN RESULTS

The sensitivities, specificities, and likelihood ratios are in the table. The ROC analysis showed that the best cutoff point was a score of 10 or 11. 89% of patients who scored ≥ 10 on the GAD-7 scale had GAD and 82% of patients who scored < 10 did not have GAD. The area under the ROC curve was 90.6%.

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CONCLUSION

The Generalised Anxiety Disorder-7 scale was accurate for diagnosing generalised anxiety disorder.

Commentary

The development of brief, patient completed scales to screen for psychiatric disorders has been stimulated by the needs of busy practitioners and the necessity to ensure diagnostic accuracy and measures of change. In the assessment of depression, the 7 item version of the Hamilton Depression Rating Scale¹ has been introduced as a brief and accurate scale for measuring the severity of depressed mood. Anxiety disorders present a complex problem given the large number of disorders it includes. Scales have been developed for the assessment of social anxiety disorder (SAD)² and a 3 item scale was shown to be a reliable method for identifying patients with SAD.³

Spitzer *et al* reported the development of a brief 7 item screening tool to assess the presence of GAD in a primary care population. The scale does not provide for a definitive diagnosis of GAD but presents a rapid, efficient, reliable, and valid method for detecting the presence of a common anxiety disorder. Most busy mental health and primary care practitioners probably do not follow the rigorous questioning required by the DSM-IV to diagnose GAD and to rule out other anxiety disorders characterised by persistent worry. The GAD-7 scale will be a useful screening tool that can identify GAD when it presents as an anxiety disorder and when it is comorbid with depressive disorders. Future studies examining the reliability of the GAD-7 scale in the assessment of comorbid anxiety disorders will be of great interest and value.

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Diagnostic characteristics of the GAD-7 scale for generalised anxiety disorder (GAD)*

GAD scale score cutoff	Sensitivity (95% CI)	Specificity (CI)	+LR	–LR
8	92% (79 to 99)	76% (73 to 99)	3.83	0.11
9	90% (73 to 98)	79% (76 to 82)	4.29	0.13
10	89% (73 to 98)	82% (79 to 84)	4.94	0.13
11	82% (66 to 92)	85% (83 to 87)	5.47	0.21
12	73% (53 to 87)	89% (87 to 91)	6.64	0.30
13	66% (30 to 93)	91% (89 to 93)	7.33	0.37
14	56% (36 to 74)	92% (90 to 94)	7.00	0.48
15	48% (37 to 59)	95% (93 to 96)	9.60	0.55

*Diagnostic terms defined in glossary. CIs and LR calculated from data in article.