The 2-item Generalized Anxiety Disorder scale had high sensitivity and specificity for detecting GAD in primary care

Kroenke K, Spitzer RL, Williams JB, *et al*. Anxiety disorders in primary care: prevalence, impairment, comorbidity, and detection. *Ann Intern Med* 2007;**146**:317–25.

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

Q In primary care patients, is a brief anxiety measure (Generalized Anxiety Disorder [GAD] scale) accurate for detecting GAD, panic disorder, social anxiety disorder, or post-traumatic stress disorder?

METHODS

Design: blinded comparison of GAD scale with psychiatric diagnoses based on *DSM-IV* criteria.

Setting: 15 primary care centres (13 family practice and 2 internal medicine) in 12 states in the US.

Patients: 965 patients who were 18–87 years of age (mean age 47 y, 69% women), completed a self-report questionnaire, and were randomly selected from 1654 patients who agreed to a follow-up telephone interview.

Description of test: GAD-7, a 7-item anxiety scale. Scores ranged from 0 to 21; scores of 5, 10, and 15 indicated mild, moderate, and severe anxiety symptoms, respectively. The first 2 items represent core anxiety symptoms, and scores on this GAD-2 subscale ranged from 0 to 6. The 2 items asked patients how often over the last 2 weeks they were bothered by (1) feeling nervous, anxious, or on edge and (2) not being able to stop or control worrying.

Diagnostic standard: 2 mental health professionals held structured psychiatric interviews by telephone to diagnose anxiety disorders according to *DSM-IV* criteria. They were blinded to the results of the GAD-7 and GAD-2.

Outcomes: sensitivity, specificity, and likelihood ratios for detecting GAD, panic disorder, social anxiety disorder, and post-traumatic stress disorder.

MAIN RESULTS

20% of patients had ⩾1 anxiety disorder. Prevalences were 7.6% for GAD, 6.8% for panic disorder, 6.2% for social anxiety disorder, and 8.6% for post-traumatic stress disorder. The area under the receiver operating characteristic curve for GAD-7 and GAD-2 did not differ for any diagnosis except post-traumatic stress disorder. The table shows the diagnostic performance of the scales.

For correspondence: Dr K Kroenke, Regenstrief Institute, Indianapolis, IN, USA. kkroenke@regenstrief.org

Source of funding: Pfizer Inc.

CONCLUSIONS

In primary care patients, the Generalized Anxiety Disorder scale (GAD-7) had high sensitivity for detecting generalised anxiety disorder and panic disorder. The GAD-2 had high sensitivity and specificity for GAD and high specificity for panic disorder, social anxiety disorder, and post-traumatic stress disorder.

Commentary

Kroenke *et al* assessed the prevalence and associations of 4 anxiety disorders and the utility of a brief anxiety screening scale (GAD-7) in primary care patients. The prevalence of ⩾1 anxiety disorder was quite high (19.5%), confirming the importance of assessing both depression and anxiety disorders in this setting.

A 2-item form of the GAD-7 was as informative as the 7-item form for GAD and other anxiety disorders. The authors' conclusion that the 2-item scale could be used as a brief screening tool is well justified by the data, especially for generalised anxiety and possibly for panic disorder.

Should general practitioners start using this scale to screen for anxiety disorders in their practice? The study was not designed to answer this question, but the answer is no. Better detection of common mental disorders may increase the likelihood of patients receiving antidepressants but, as the example of depression has shown, is not sufficient to improve outcomes over the long term.[1] If this is true for depression then it is even more relevant for anxiety disorders: depression is usually episodic in nature while anxiety disorders are usually chronic. Anxiety disorders are also more likely to require treatment with cognitive-behavioural therapy alone, as studies have shown that the long term prognosis may be better if cognitive-behavioural therapy is not combined with drugs.[2]

Anxiety disorders are complex diseases that require considerable expertise in their treatment. Detection should only be considered in the context of a collaborative or a stepped care approach to management in primary care. It is clear that we need more research in the practical management of anxiety disorders in this setting if we want to prevent disability and improve outcomes.

Petros Skapinakis, MD, MPH, PhD
University of Bristol and University of Ioannina
Bristol, UK and Ioannina, Greece

1 Gilbody S, Sheldon T, Wessely S. *BMJ* 2006;**332**:1027–30.
2 Foa EB, Franklin ME, Moser J. *Biol Psychiatry* 2002;**52**:987–97.

Test features of the GAD-7 and GAD-2 scales for detecting anxiety disorders in primary care*

Diagnosis	Test and cutoff score	Sensitivity (95% CI)	Specificity (CI)	+LR	−LR
Generalised anxiety disorder	GAD-7 ⩾8	92% (83 to 97)	76% (73 to 79)	3.8	0.11
	GAD-2 ⩾3	86% (76 to 93)	83% (80 to 85)	5.1	0.17
Panic disorder	GAD-7 ⩾8	82% (70 to 90)	75% (72 to 78)	3.3	0.24
	GAD-2 ⩾3	76% (64 to 85)	81% (79 to 84)	4.0	0.30
Social anxiety disorder	GAD-7 ⩾8	78% (66 to 88)	74% (71 to 77)	3.0	0.30
	GAD-2 ⩾3	70% (57 to 81)	81% (78 to 83)	3.7	0.37
Post-traumatic stress disorder	GAD-7 ⩾8	76% (65 to 85)	75% (72 to 78)	3.0	0.32
	GAD-2 ⩾3	59% (48 to 70)	81% (78 to 84)	3.1	0.51
Any anxiety disorder	GAD-7 ⩾8	77% (70 to 82)	82% (80 to 85)	4.3	0.28
	GAD-2 ⩾3	65% (57 to 71)	88% (85 to 90)	5.4	0.40

*GAD-7 and GAD-2 = Generalized Anxiety Disorder 7-item and 2-item scales, respectively; LR = likelihood ratio; diagnostic terms defined in glossary. LRs calculated from data in article.