strategies to improve their vision is needed. The effectiveness of an optimised primary care based screening intervention that overcomes possible factors contributing to the observed lack of benefit in trials to date warrants assessment.

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Ethical approval: Ethical approval for all aspects of the study was obtained from relevant ethics committees both for the original and the follow-up trials, and for the practices involved in the repeat vision screening. Ethical approval for all aspects of the study was obtained from relevant ethics committees both for the original and for the practices involved in the repeat vision screening.

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Figure A on bmj.com shows participants with pure anxiety; Table A gives individual scales of mood and anxiety.

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Primary care

DSM depression and anxiety criteria and severity of symptoms in primary care: cross sectional study

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Experts continue to debate the links between categories based on the Diagnostic and Statistical Manual of Mental Disorders, third edition and later (DSM-III-R) and severe symptoms and impairment seen in primary care. Although dichotomous labels may be useful for denoting boundaries between taxa or categories, difficulties arise when continuous dimensions, such as symptoms of mental health, are represented as either present or absent.1 Screening and treatment based on fitting “round” dimensions into “square” categories may lead to undertreatment, overtreatment, or inappropriate treatment.

We examined how well the DSM classifications correspond to severity of symptoms. If categories based on the DSM accurately guide detection and treatment, then patients meeting criteria from the DSM for a mood or anxiety disorder should have relatively severe symptoms, and patients who meet criteria of the DSM solely for a mood disorder, without a comorbid anxiety disorder, should experience their most severe symptoms within the domain of that disorder—that is, as mood symptoms—and vice versa.

Participants, methods, and results

We studied a previously described sample of 1333 participants presenting for non-urgent appointments at a practice for families based at a university in a medium sized city in southeast Texas (University of Texas Medical Branch, Galveston).2 All participants were given the primary care evaluation of mental disorders (PRIME-MD) structured psychiatric interview for DSM assessed

psychiatric diagnosis and self reported 15 items to assess severity of mood and anxiety symptoms independently of the PRIME-MD. Participants identified as having threshold mood or anxiety disorders could not also meet criteria for disorders specified as exclusionary by the DSM.

Previous analyses considered caseness based on the DSM against dimensions representing the presence or absence of mood and anxiety symptoms. Building on this, and to consider severity of symptoms independently of the number of symptoms, we used summed scores for the severity of mood and anxiety symptoms as our dimensional axes. We plotted the participants meeting criteria for mood disorder alone, anxiety disorder alone, or both disorders, with a regression line summarising the association between the severity of mood and severity of anxiety in each group. To assess agreement between categorical and severity classifications, we used a cut off one standard deviation beyond the mean, which is a reasonable boundary between mild and greater severity of symptoms.

Of 199 participants meeting criteria for mood disorder alone, 95 (48%) had mild symptoms. Among the 105 participants with comparatively severe symptoms, only 21 (39%) had main mood symptoms, 13 (26%) had main anxiety, and 20% (39%) had mixed symptoms (figure). The regression line (R² = 0.30, P < 0.001) between severity dimensions is steeper than we expected, indicating that severity of anxiety symptoms has a greater than predicted influence among participants meeting DSM criteria for "pure" depression. (See fig A on bmj.com for patients with pure anxiety disorders.)

Comment

Mood and anxiety disorder classifications based on the DSM had strikingly weak associations with the severity of each syndrome's symptoms, in a large sample of patients in primary care. Categorial representations of important clinical phenomena can misrepresent dimensional quantities. Doctors in primary care make dichotomous decisions to start treatment for depression (or not)—categories based on the DSM are logical and pragmatic. These decisions should be made, however, with as much valid data as is useful, without exceeding the obvious informational and time limitations of primary care. What is needed is a more careful balance between prudence and validity. We believe that the solution is to combine aspects of the categorical approach (based on the DSM) and the dimensional approach (based on severity of symptoms), to maximise the advantages and minimise the disadvantages of each approach alone.

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