Michael Kyrios
Richard Moulding
Maja Nedeljkovic

Anxiety disorders

Assessment and management in general practice

Background

Anxiety is a normal physiological response to a threat. Anxiety disorders occur when this normal physiological response is associated with high levels of autonomic arousal, erroneous cognitions and dysfunctional coping strategies. Anxiety disorders are highly prevalent and present commonly to general practice. Anxiety disorders are often comorbid with other psychiatric and medical disorders and may be associated with significant morbidity.

Objective

This article describes the diagnosis, assessment and management of anxiety disorders in the general practice setting.

Discussion

Assessment in patients presenting with anxiety symptoms involves excluding a medical cause, identifying features of specific anxiety disorders as well as other coexisting psychiatric disorders, and assessing the degree of distress. Management options include psychoeducation, psychological treatments (particularly cognitive behaviour therapy) and pharmacological treatments. Patients with a diagnosis of an anxiety disorder can access Medicare funded psychological care under a number of Australian government initiatives. Selective serotonin reuptake inhibitors and serotonin norepinephrine reuptake inhibitors are the first line pharmacological agents used to treat anxiety disorders. Regular review is vital to monitor for clinical improvement and more complex presentations may require specialist psychological or psychiatric referral.

Keywords: anxiety disorders; mental health; treatment

CPD

Anxiety is a normal human physiological mechanism designed to help the body respond to a threat. The autonomic changes that occur in anxiety are essential to avoid danger and moderate anxiety can actually improve performance. However, when anxiety is associated with very high levels of autonomic arousal, erroneous cognitions including exaggerated threat perceptions and dysfunctional coping strategies, it can result in significant distress and impairment in work, school, family, relationships, and/or activities of daily living. Patients presenting with anxiety symptoms in the general practice setting do not always fit the criteria for a specific anxiety disorder. However, it is important for the general practitioner to know how to assess patients for specific anxiety disorders and the basic principles of management of these disorders. Equally, GPs need strategies to manage patients with distressing anxiety symptoms who do not fulfil the criteria for the diagnosis of a specific anxiety disorder and/or where the anxiety coexists with another mental health disorder (such as depression), substance abuse or medical condition.[1]

Twelve month prevalence rates in Australia indicate that anxiety disorders are the most common mental health problem, affecting 14.4% of the population (although some people experienced more than one type of anxiety disorder). Post-traumatic stress disorder (PTSD) is the most widespread affecting 6.4% of the population, followed by social phobia (4.7%), agoraphobia (2.8%), generalised anxiety disorder (GAD, 2.7%), panic disorder (2.6%), and obsessive compulsive disorder (OCD, 1.9%).[2] Women experienced higher rates than men (18% and 11% respectively), and the highest rate of anxiety disorders was in the 35–44 years age group (18%). One in 5 women and one in 10 men report a specific phobia.[3] General practice is often the first port-of-call for patients with anxiety disorders; one in 10 people experiencing an anxiety disorder within the past 12 months visited a GP for their mental health problems but did not receive care from any other provider.[4] The Bettering the Evaluation and Care of Health program showed that GPs treat psychological problems at a

rate of 11.5 per 100 encounters and anxiety is the second commonest psychological problem managed after depression.[5]

Assessment

Initial assessment should begin with a focused history. Allow the patient to describe the symptoms they find most concerning and enquire about substance use as well as symptoms that may be suggestive of a medical condition. Physical examination and investigations should concentrate on excluding an underlying medical cause. Medical conditions that can be associated with anxiety include:[6]

- hypoglycaemia
- hyper- or hypo-thyroidism
- cardiac disorders
- chronic respiratory disease
- vitamin B deficiency
- inner ear conditions
- acute reactions to aspartame
- withdrawal from benzodiazepines.

If there is no evidence of a medical cause for the patient's symptoms, assessment should move on to looking for features of specific anxiety disorders as well as other coexisting psychiatric disorders, and assessing the degree of distress.

Symptoms of specific anxiety disorders

Diagnosis of specific anxiety disorders involves identification of a specific focus for the anxiety. For instance, if a patient has panic attacks and catastrophises about these as indicating an imminent heart attack/suffocation, a diagnosis of panic disorder may be warranted. However, if anxiety or the panic attacks occur only on exposure to social situations, then social phobia may be the diagnosis (*Figure 1*). Full diagnostic criteria are available in the Diagnostic and Statistical Manual of Mental Disorders (4th edn, text revision) (DSM-IV-TR).[6] Of course, in the general practice setting, many patients do not fit neatly into this framework and have symptoms of multiple disorders without fulfilling the criteria for a specific disorder.

Coexisting psychiatric disorders

Anxiety may be a symptom of, or coexist with, another underlying psychiatric disorder such as depression, bipolar disorder or a psychotic disorder. It is important to screen for these diagnoses at the initial assessment. For example, the ruminative thoughts seen in depression can be similar to worry, but they usually are more concerned with past events, self criticism and guilt, rather than future events. If a specific anxiety disorder is diagnosed, there is a high risk that the patient will also have a psychiatric comorbidity or significant substance use. For example, the presence of GAD increases the likelihood of having depression by an odds ratio of 28.9.[7] Anxiety disorders themselves tend to co-occur and the greater the comorbidity, the greater the likelihood of help seeking.[8]

Hypochondriasis is another important diagnosis to consider in the

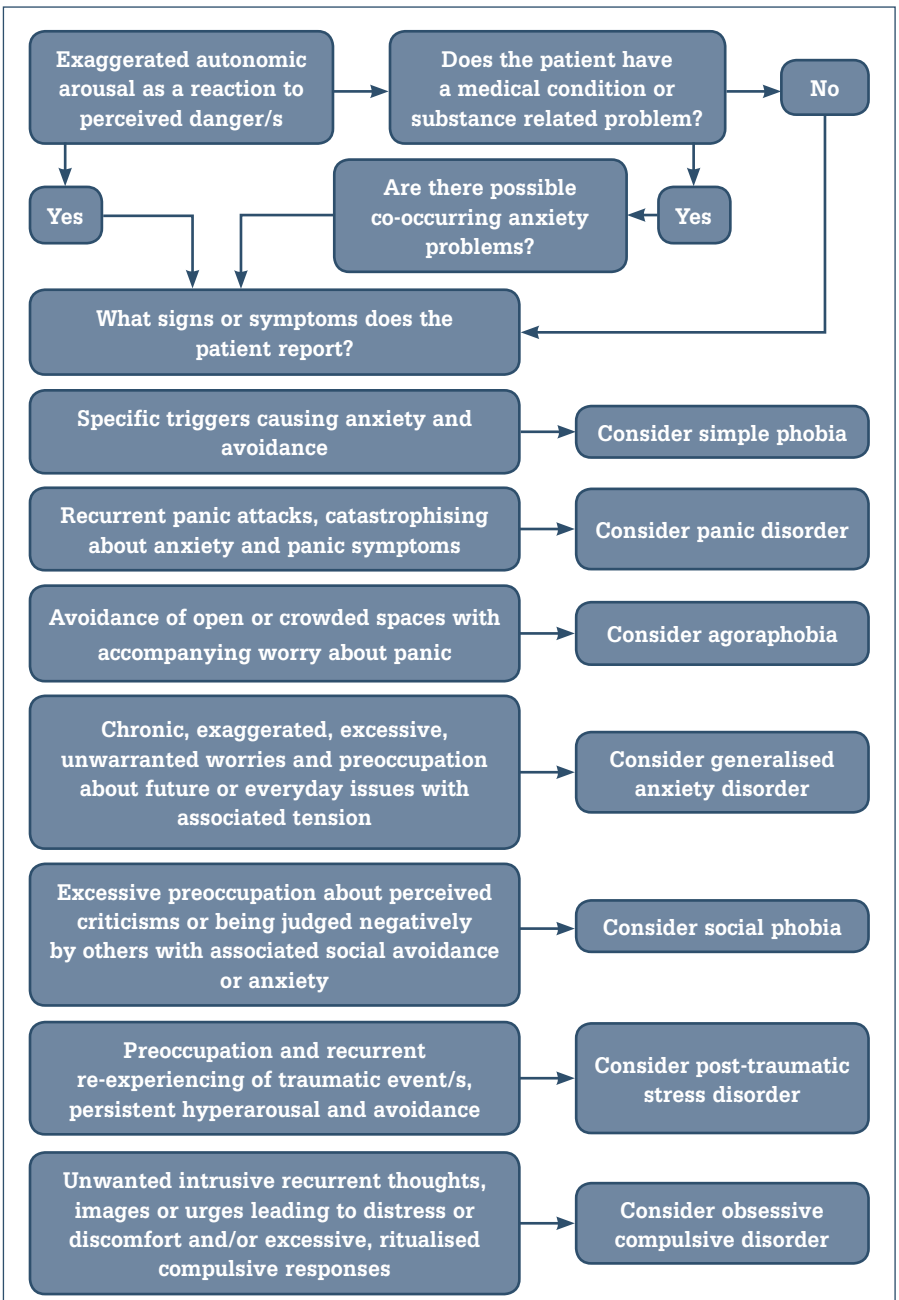

Figure 1. Differential diagnosis of anxiety disorders

primary care setting. Hypochondriasis is considered a somatoform disorder, not an anxiety disorder, however, there can be some overlap between the symptoms of hypochondriasis and OCD. Both may exhibit obsessions about health, with reassurance seeking from medical professionals for short term relief.[9] The panic attacks that characterise panic disorder and GAD are particularly prominent, with panic attacks often misattributed to medical symptoms (eg. arriving at a hospital emergency department with a 'heart attack'). However, in OCD the patient recognises that their ruminations are irrational, whereas in hypochondriasis they do not.

Assessing the degree of distress

An anxiety checklist or self report inventory may be helpful to quantify levels of anxiety and track the severity of symptoms over time and in response to treatment. These include the Depression Anxiety Stress Scales-21 (DASS)[10] (see *Resources*) and the Penn State Worry Questionnaire).[11] The Kessler 10 (K-10) questionnaire, which measures general distress, is also a useful objective measure of distress caused by psychiatric symptoms[12] (see *Resources*).

Management

Psychoeducation

Psychoeducation about the nature of anxiety, its purpose and how it can present is important when dealing with someone with any anxiety disorder. Most individuals with anxiety symptoms will also suffer a secondary 'worry about worry' (eg. that anxiety is dangerous, that they are going crazy or 'losing it'), which clearly exacerbates the anxiety. Psychoeducation is also an important lead in to some treatment options (eg. relaxation, cognitive behaviour therapy [CBT], exercise, yoga). As a trusted and authoritative source of information about health and physiology, GPs are in an excellent position to provide such information.

Psychological treatments

Psychological treatments have been shown to be at least as effective as medication for anxiety disorders, with CBT having the greatest evidence for efficacy.[13,14] Some GPs may have special skills in the area of CBT but in most cases the patient will need to be referred to a psychologist. Patients with a diagnosis of an anxiety disorder can access Medicare funded psychological care under a number of Australian government initiatives. These generally involve completion and billing under Medicare for a GP Mental Healthcare Plan or Review (items 2710 and 2712) (see *Resources*).

Cognitive behaviour therapy for anxiety disorders starts with psychoeducation about anxiety, as outlined above, and training patients in relaxation techniques (such as progressive muscular relaxation or guided imagery) or increasingly, mindfulness based meditation. Preliminary evidence indicates that mindfulness techniques may be of particular benefit.[15] Exposure techniques are helpful if there is a specific feared stimulus. These involve exposing the patient to feared stimuli in a graded fashion until anxiety reduces. The diagnosis will indicate the stimuli to which the individual will require exposure, for example, bodily sensations in panic disorder or social situations in social phobia. Usually exposure techniques are coupled with behavioural strategies to address avoidance behaviour and cognitive strategies that challenge specific maladaptive beliefs (eg. 'I must control my horrible thoughts' in OCD). Other aspects of CBT for anxiety include training in problem solving to help patients develop adaptive coping and interpersonal skills and relapse prevention strategies. In addition to in-session exposure practice, home based tasks and monitoring sheets to help the patient report on their experiences between consultations have been shown to be helpful.[16–18] Online information and treatments for anxiety disorders may be helpful. These are outlined in more detail in the article 'Anxiety and depression: online resources and management tools' by Reynolds et al in this issue of *Australian Family Physician*.

Pharmacological management

Selective serotonin reuptake inhibitors (SSRIs) and serotonin noradrenaline reuptake inhibitors (SNRIs) are the first line pharmacological agents used to treat anxiety disorders, however not all are available on the Pharmaceutical Benefits Scheme (PBS) for this indication (*Table 1*).[19] Benzodiazepines are commonly used in panic disorder and GAD, however, their chronic use is associated with significant potential problems including tolerance, dependence, withdrawal, relapse, rebound, interactions with other medications and adverse events.[20–22] There is inconsistent data about the long

Table 1. PBS listing for SSRIs used in anxiety disorders*

Escitalopram	Listed as Restricted Benefit for the treatment of major depressive disorder (MDD) and treatment of moderate to severe GAD in a patient who has not responded to nonpharmacological therapy, AND • for whom a GP Mental Health Care Plan, as described under Item 2710 of the Medicare Benefits Schedule, has been prepared, OR • who has been assessed by a psychiatrist
Fluoxetine and fluvoxamine	Listed as Restricted Benefit for MDD and OCD
Paroxetine	Listed as Restricted Benefit for MDD, OCD and panic disorder
Sertraline	Listed as Restricted Benefit for MDD, OCD and panic disorder where other treatments have failed or are inappropriate

* Refer to www.pbs.gov.au

term efficacy of benzodiazepines, however, they have clear short term efficacy, quick onset of action and generally good tolerance.[20] Ideally, benzodiazepines should be restricted to short term use (eg. up to 4 weeks) and at the lowest possible doses.[22] Azapirones, a group of drugs that work at the 5-HT1A receptor, are also used to treat GAD, but findings for their efficacy are conflicting.[23] Tricyclic antidepressants and monoamine oxidase inhibitors as well as adjunctive treatment with anticonvulsants and atypical antipsychotics may be considered in treatment resistant cases.[19]

Pharmacological, nonpharmalogical or both

It is important to note that the management of anxiety disorders with concurrent CBT and pharmacotherapy has not been found to be superior in the longer term to either treatment alone, despite its continued use in practice.[24,25] Some researchers consider the concurrent use of CBT and anxiolytic medications to be detrimental to the extinction phase of exposure based therapies, which is dependent on the effects that glucocorticoid activity has on learning of emotional material.[26] Patients value both CBT and pharmacotherapy, but tend to prefer CBT to medication for the treatment of anxiety disorders, and see CBT as more likely to be effective in the long term.[27,28] A commonly used rule of thumb is to start with CBT and, if patients do not respond or if significant depression levels are present, to consider pharmacotherapy. For more severe forms of presentation, starting off with an evidence based medication is considered prudent before commencing CBT. Either way, patient preferences and characteristics must be considered in clinical decision making. Regular review is vital to monitor for clinical improvement. More complex presentations (eg. severe, comorbid) or disorders requiring more specialised psychological interventions (eg. OCD, PTSD, GAD) may necessitate referral to a psychologist or psychiatrist with a special interest in these areas.

Case study 1

Simone, aged 35 years, reports generally being a 'worry wart' and details a range of chronic symptoms including feeling nervous and jumpy, palpitations, hyperventilating and nausea. More recently, she was caught up in an armed robbery at the local supermarket. Since this event, Simone reports insomnia and intrusive worries that it might happen again. She has avoided going to the supermarket since the robbery and is reticent to leave the house at all, even for work. She is slowly becoming more isolated and depressed. Simone's GP suspects that she is suffering from PTSD with depression following the armed robbery, on the background of underlying generalised anxiety symptoms. After a full history and examination, the GP completes a Mental Health Plan and refers Simone to a clinical psychologist who specialises in the treatment of PTSD. The psychologist undertakes a thorough diagnostic interview and also diagnoses a pre-existing GAD. The psychologist suggests a CBT program focusing on anxiety management training to decrease Simone's arousal, activity management to motivate her, an exposure program to challenge her avoidance, and a cognitive therapy program to help Simone with control of her worry. Within two lots of six individual sessions, Simone's anxiety and avoidance have ameliorated, although her chronic worrying is still a problem. The psychologist suggests the GP refer Simone to a 10 session group therapy program run at a local university psychology clinic. Subsequently, Simone's quality of life improves significantly.

Case study 2

Jack, aged 46 years, presents with severe dermatitis on his hands. He reports constantly washing his hands and has always been concerned about 'catching germs and diseases'. More recently, following an overseas trip where he caught a severe flu, he has become hypervigilant about 'avoiding germs' and can hardly think about anything else. He complains of symptoms of depression, which are severe enough for a diagnosis of a major depressive episode, and feels unable to cope with life. He refuses to leave the house except under enormous duress and cannot take public transport to go to work in the abattoir where he is a manager. He has a large mortgage and is at risk of losing his job.

Jack's GP assesses Jack and assesses that the primary diagnoses are major depression and OCD, with a secondary dermatitis caused by abrasions from overwashing of hands. He completes a Mental Health Plan and refers Jack to a clinical psychologist who specialises in the treatment of OCD. The psychologist suggests a CBT program focusing on activity management to motivate Jack, a program of exposure with response prevention for the OCD, as well as a cognitive therapy program. Unfortunately, Jack's depression makes it difficult for him to undertake any of the psychological strategies. Jack is started on a SSRI following consultation between the psychologist and GP. Jack responds very positively to the combined intervention, and within 10 weeks has a moderate severity rating on an OCD measure. The psychologist further suggests that Jack undertake an online treatment for OCD before seeing him for a further two sessions to discuss relapse prevention strategies. The additional treatment produces further amelioration in OCD and depressive symptoms. Jack is able to return to work and function satisfactorily. Jack's GP continues to monitor him for another 12 months before commencing a process to cease the SSRI.

Summary of important points

- Anxiety disorders occur when the normal physiological response to a threat is associated with high levels of autonomic arousal, erroneous cognitions and dysfunctional coping strategies.
- Anxiety disorders are highly prevalent, present commonly to general practice and are associated with significant morbidity.
- Anxiety disorders are often comorbid with other psychiatric and medical disorders.

- Assessment in patients presenting with anxiety symptoms involves excluding a medical condition, identifying features of specific anxiety disorders, as well as other coexisting psychiatric disorders and assessing the degree of distress.
- Management options in anxiety disorders include psychoeducation, psychological treatments (particularly CBT) and pharmacological treatments.
- Patients with a diagnosis of an anxiety disorder can access Medicare funded psychological care under a number of Australian government initiatives.
- SSRIs and SNRIs are the first line pharmacological agents used to treat anxiety disorders.
- Regular review is vital to monitor for clinical improvement and more complex presentations may require specialist psychological or psychiatric referral.

Resources

- The Depression Anxiety Stress Scales-21 is available from the University of New South Wales School of Psychology: www2.psy.unsw.edu.au/groups/dass
- The K-10 questionnaire is available from the Black Dog Institute: www.blackdoginstitute.org.au/docs/5.K10withinstructions.pdf
- Information about GP Mental Health Care Medicare Items: www.health.gov.au/internet/main/publishing.nsf/content/health-pcd-gp-mental-health-care-medicare.

Authors

Michael Kyrios BA(Psych, Phil), DipEd(Psych), MPsych(Clin Psych), PhD(Clin Psych), FAPS, is Professor of Psychology and Director of the Brain and Psychological Sciences Research Centre, Faculty of Life and Social Sciences, Swinburne University of Technology, Melbourne, Victoria. mkyrios@swin.edu.au

Richard Moulding BSc(Hons), MPsych(Clin Psych), PhD, MAPS, is a lecturer, Brain and Psychological Sciences Centre, Faculty of Life and Social Sciences, Swinburne University of Technology, Melbourne, Victoria.

Maja Nedeljkovic BSc(Hons), MPsych(Clin Psych), PhD, MAPS, is a Lecturer, Brain and Psychological Sciences Centre, Faculty of Life and Social Sciences, Swinburne University of Technology, Melbourne, Victoria.

Conflict of interest: none declared.

References

1. Teesson M, Slade T, Mills K. Comorbidity in Australia: findings of the 2007 National Survey of Mental Health and Wellbeing. Aust N Z J Psychiatry 2009;43:606–14.
2. Australian Bureau of Statistics. Survey of Mental Health and Wellbeing: summary of results. Publication 4326.0, 2007.
3. Fredrikson M, Annas P, Fischer H, Wik G. Gender and age differences in the prevalence of specific fears and phobias. Behav Res Ther 1996;34:33–9.
4. Burgess PM, Pirkis JE, Slade TN, Johnston AK, Meadows GN, Gunn JM. Service use for mental health problems: findings from the 2007 National Survey of Mental Health and Wellbeing. Aust N Z J Psychiatry 2009;43:615–23.
5. Harrison C, Britt H. The rates and management of psychological problems in Australian general practice. Aust N Z J Psychiatry 2004;38:781–8.
6. American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 4th edn. Washington, DC: American Psychiatric Association, 2000.
7. Andrews G, Slade T, Issakidis C. Deconstructing current comorbidity: data from the Australian National Study of Mental Health and Well-Being. Br J Psychiatry 2002;181:306–14.
8. Issakidis C, Andrews G. Service utilisation for anxiety in an Australian community sample. Soc Psychiatry Psychiatr Epidemiol 2002;37:153–63.
9. Salkovskis PM, Warwick HMC, Deale AC. Cognitive-behavioral treatment for severe and persistent health anxiety (hypochondriasis). Brief Treat Crisis Interv 2003;3:353–68.
10. Lovibond PF, Lovibond SH. The structure of negative emotional states: comparison of the Depression Anxiety Stress Scales with the Beck Depression and Anxiety Inventories. Behav Res Ther 1995;33:335–43.
11. Meyer TJ, Miller ML, Metzger RL, Borkovec TD. Development and validation of the Penn State Worry Questionnaire. Behav Res Ther 1990;28:487–95.
12. Kyrios M, Hegarty K. Self-monitoring and psychometric tools. In: Blashki G, Judd F, Piterman L, editors. General practice psychiatry. North Ryde, NSW: McGraw-Hill, 2007;356–72.
13. Olatunji BO, Cisler JM, Deacon BJ. Efficacy of cognitive behavioral therapy for anxiety disorders: a review of meta-analytic findings. Psychiatr Clin North Am 2010;33:557–77.
14. Deacon BJ, Abramowitz JS. Cognitive and behavioral treatments for anxiety disorders: a review of meta-analytic findings. J Clin Psychol 2004;60:429–41.
15. Allen NB, Chambers R, Knight W, Melbourne Academic Mindfulness Interest Group. Mindfulness-based psychotherapies: a review of conceptual foundations, empirical evidence and practical considerations. Aust N Z J Psychiatry 2006;40:285–94.
16. Roemer L, Orsillo SM, Salters-Pedneault K. Efficacy of an acceptance-based behavior therapy for generalized anxiety disorder: evaluation in a randomized controlled trial. J Consult Clin Psychol 2008;76:1083–9.
17. Kyrios M. Exposure and response prevention in the treatment of obsessive-compulsive disorder. In: Menzies R, Silva P de, editors. Obsessive-compulsive disorder: theory, research and treatment. Chichester, England: Wiley, 2003;259–74.
18. Kazantzis N, Deane FP, Ronan KP. Homework assignments in cognitive and behavioral therapy: a meta-analysis. Clin Psychol 2000;7:189–202.
19. Ravindran LN, Stein MB. The pharmacologic treatment of anxiety disorders: a review of progress. J Clin Psychiatry 2010;71:839–54.
20. Lader MH. Limitations on the use of benzodiazepines in anxiety and insomnia: are they justified? Eur Neuropsychopharmacol 1999;9:S399–405.
21. Kaplan EM, Du Pont RL. Benzodiazepines and anxiety disorders: a review for the practicing physician. Curr Med Res Opin 2005;21:941–50.
22. Cloos JM, Ferreira V. Current use of benzodiazepines in anxiety disorders. Curr Opin Psychiatry 2009;22:90–5.
23. Chessick CA, Allen MH, Thase M, et al. Azapirones for generalized anxiety disorder. Cochrane Database Syst Rev, Issue 3. Art. No.: CD006115. DOI: 10.1002/14651858.CD006115. 2006.
24. Foa EB, Franklin ME, Moser J. Context in the clinic: How well do cognitive-behavioral therapies and medications work in combination? Biol Psychiatry 2002;52:987–97.
25. Hofmann SG, Sawyer AT, Korte KJ. Is it beneficial to add pharmacotherapy to cognitive-behavioral therapy when treating anxiety disorders? A meta-analytic review. Int J Cogn Ther 2009;2:160–75.
26. Otto MW, McHugh RK, Kantak KM. Combined pharmacotherapy and cognitive-behavioral therapy for anxiety disorders: medication effects, glucocorticoids, and attenuated treatment outcomes. Clin Psychol Sci Pract 2010;17:91–103.
27. Jorm AF, Korten AE, Rodgers B, et al. Belief systems of the general public concerning the appropriate treatments for mental disorders. Soc Psychiatry Psychiatric Epidemiol 1997;32:468–73.
28. Deacon BJ, Abramowitz JS. Patients perceptions of pharmacological and cognitive-behavioral treatments for anxiety disorders. Behav Ther 2005;36:139–45.

correspondence **afp@racgp.org.au**