Clinical Practice Review Mental health

Keywords Mental health/Anxiety/ Generalised anxiety disorder

This article has been double-blind peer reviewed

In this article...

- Types of anxiety disorders and possible causes
- How to identify signs and symptoms of anxiety
- Principles of managing anxiety and supporting patients to self-manage

Symptoms and causes of anxiety, and its diagnosis and management



Nursing Times Self-assessment

Key points

Anxiety is a common, and often chronic, mental illness that can be debilitating

People with anxiety can experience both psychological and physical symptoms

Causes of anxiety can include stress, trauma, environmental factors and genetics

Person-centred care and building therapeutic relationships help provide the most effective care and treatment across all healthcare settings

Treatments vary from person to person, but national guidance recommends a combination of prescribed medication and a psychological intervention

Authors Rosa Milne is community mental health nurse, Royal Cornhill Hospital Aberdeen; Mary Munro is lecturer, mental health nursing, Robert Gordon University Aberdeen, and community mental health nurse (substance misuse), Royal Cornhill Hospital Aberdeen.

Abstract Of all psychiatric illnesses, anxiety disorders are the most prevalent and generalised anxiety disorder is the most common of all the anxiety disorders. Causes of anxiety can include stress and trauma, environmental factors and genetics. Symptoms of anxiety are both psychological and physical in their presentation, and can cause affected individuals and their families or carers significant distress. Treatment can include self-help, lifestyle adjustments, pharmacological therapy and psychological approaches. Nurses across all fields of practice work with patients who experience anxiety; an awareness of simple interventions and psychoeducation can help these patients.

Citation Milne R, Munro M (2020) Symptoms and causes of anxiety, and its diagnosis and management. *Nursing Times* [online]; 116: 10, 18-22.

nxiety is one of the most common mental health conditions in the UK and is estimated to affect 8.2 million people at any one time (Fineberg et al, 2013). Anxiety disorders are associated with a substantial degree of impairment to an individual's mental and physical health, high use of healthcare services and, due to their effect on work attendance rates, significant economic burden for wider society (Fineberg et al, 2013).

Anxiety can occur when we are worried, uneasy or fearful about events that are about to happen or may happen in the future (Mind, 2017). Although anxiety about perceived threats is a natural human response that most people experience, if such thoughts start to have a negative impact on an individual's daily life, they may be a sign of an anxiety disorder.

Anxiety disorders can affect a person's quality of life significantly and are associated with:

- Impaired social and occupational functioning;
- Comorbidity with other disorders;
- An increased risk of suicide (Hoge et al, 2012).

Types of anxiety

There is a number of different anxiety disorders, but they can be difficult to diagnose and, in some cases, difficult to distinguish from other mental health conditions, including depression (Baxter et al, 2014). Some of the most common disorders are outlined in Table 1.

The most common disorder to present in primary care is generalised anxiety disorder (GAD) (Alladin, 2015); this is characterised by chronic anxiety, worry and tension experienced without a direct environmental stimulus, such as an experience that induces fear (Rhoads and Murphy, 2015). GAD can carry with it a significant degree of comorbidity and impairment to daily functioning, and patients

Table 1. Common anxiety disorders						
Disorder	Description					
Phobia	A persistent, irrational fear of a specific object, activity or situation that leads to a desire for avoidance or actual avoidance of that object, activity or situation. Often the individual recognises that these reactions to the specific objects/situations are irrational					
Panic disorder	Panic attacks occur as a result of a sudden onset of extreme apprehension or fear. Normal functioning can be suspended and a misinterpretation of reality can occur					
Social anxiety disorder	Severe anxiety or fear provoked by exposure to social situations or performance. It could involve avoidance of situations, objects or stimuli					
OCD	Thoughts, images and impulses consume an individual or the individual is compelled to act out their behaviours to an extent that those behaviours interfere with their social, personal and occupational function					
PTSD	Caused by past traumatic events, which can vary from a single traumatic event such as a car crash or repeated trauma including abuse					
Body dysmorphic disorder	Obsessions and compulsions relating to an individual's own physical appearance					
Perinatal anxiety or perinatal OCD	Anxiety problems that develop in some women during pregnancy or in the first year after giving birth					
OCD = obsessive compu Source: Wright and McKe	lsive disorder; PTSD = post-traumatic stress disorder. eown (2018)					

may experience distress and disability (Crask and Stein, 2016). Furthermore, the course of GAD can be complicated, often featuring highs and lows and without full remission from all symptoms (Zimmerman et al, 2012). This article discusses anxiety and, specifically, GAD.

Epidemiology

Up to a third of the population is affected by an anxiety disorder during their lifetime (Bandelow and Michaelis, 2015). Symptoms tend to emerge in childhood, adolescence or early adulthood (median age for onset is 11 years) but their occurrence peaks in midlife (Bandelow and Michaelis, 2015). While anxiety disorders are common across all population groups, they are twice as common in women as in men (Remes et al, 2016). Reasons for this have been attributed to women being exposed to more stressful and traumatic life experiences (Maeng and Milad, 2015) such as pregnancy (Remes et al, 2016), and higher rates than men of domestic and sexual abuse (Walby and Towers, 2017).

Causes

Although early exposure to stress and the experience of trauma are important risk factors for anxiety disorders, evidence also highlights biological causes, such as issues with the regulation of neurotransmitters and heritable genetic causes (Smoller, 2016). The ability to relate to a person who experiences anxiety is an important part of

a therapeutic relationship and, as such, it is crucial to acknowledge that anxiety is not 'just' a mental state but also has physiological causes and responses, which can be frightening.

A recent review identified that there is a genetic heritability of around 30% for GAD and that the same predisposing genes are present across sexes (Gottschalk and Domschke, 2017). Pro-inflammatory markers have also been shown to directly modulate affective behaviour and heightened concentrations of inflammatory signals have been described in GAD, post-traumatic stress disorder (PTSD), panic disorder and phobias (Michopoulos et al, 2017).

Stress – and particularly continued exposure to stress – has been linked to anxiety, as well as having a negative impact on the body's immune, cardiovascular, neuroendocrine and central nervous systems (Khan and Khan, 2017). Occupational stress – associated with insecurity or stress related to required tasks or workload – has been identified as a leading cause of anxiety among working populations and, as well as causing distress for the individuals affected, has a negative effect on productivity (Fan et al, 2015).

Physical health problems can also cause or perpetuate anxiety disorders. In patients with a malignant disease, for example, a response of anxiety is understandable; however, in some patients, anxiety may increase to a level that is disproportionately high and that, if it does not improve, can lead to functional impairments (Eisner et al, 2010).

Anxiety disorders that are comorbid with a physical illness can lead to a higher symptom burden and poorer health outcomes, so the detection and testing for

Box 1. Common symptoms of generalised anxiety disorder

Physical symptoms

- Dizziness
- Tiredness
- Palpitations
- Muscle aches and tension
- Trembling
- Dry mouth
- Excessive sweating
- Shortness of breath
- Abdominal pain
- Nausea
- Headaches
- Pins and needles
- Insomnia

Psychological symptoms

- Restlessness
- A sense of dread
- Difficulty concentrating
- Irritability
- Constantly feeling 'on edge'
- Avoidance of certain situations
- Isolating oneself

Source: www.nhs.uk/conditions/generalised-anxiety-disorder

Box 2. Questions to help assess anxiety severity

- Can you tell me about some of the symptoms you are experiencing?
- Can you tell me if there are any particular things that you tend to worry about?
- Can you explain if your symptoms interfere with your daily activities?
- Are there any things that you avoid doing because of your anxiety?
- Have your feelings of anxiety been occasional or continuous?
- When did you first begin noticing your anxiety?
- Does anything in particular seem to trigger your anxiety or make it worse?
- What, if anything, seems to improve your feelings of anxiety?
- What, if any, physical or mental health conditions do you have?
- What traumatic experiences have you had recently or in the past?
- Do you have any blood relatives with anxiety or other mental health conditions, such as depression?

Source: Norman and Ryrie (2018)

pathological anxiety (anxiety that interferes with the person's functioning) in medical settings is essential to meet patients' holistic needs (Eisner et al, 2010). Anxiety has also been shown to triple the risk of people with prediabetes developing type 2 diabetes, after taking account of sociodemographic, metabolic risk factors and lifestyle choices (Jiang et al, 2020).

Nurses in all fields should be aware of the signs and symptoms of anxiety, and work with the patient to identify appropriate interventions to ease distress.

Signs and symptoms

It is suggested that the symptoms associated with anxiety disorders can be just as disabling as schizophrenia, depression and bipolar disorder (Bystritsky et al, 2013). The Global Burden of Disease Collaborative Network lists anxiety disorders as the ninth-leading health issue contributing to years lived with disability.

The World Health Organization's International Statistical Classification of Diseases and Related Health Problems, 10th revision (ICD-10) states that GAD is typified by fears based on dangers – such as a loved one being in an accident – the likelihood of which is exaggerated and the effects of which are viewed as devastating or catastrophic (WHO, 2019). Worries such as these

can swiftly spread to different areas of patients' everyday lives, including health, familial relationships, employment and/or their socioeconomic situation. Common symptom of GAD are listed in Box 1.

Diagnosing anxiety

Before a diagnosis of anxiety can be made, a physical examination should take place to rule out any physical conditions that may be causing symptoms, including overactive thyroid gland (hyperthyroidism) and anaemia (iron or vitamin B12 deficiency). Physical observations, such as vital signs, should also be completed. When an assessment of anxiety disorder is conducted, the practitioner must try to understand:

- The nature and severity of the presenting problem;
- Any functional impairment (National Institute for Health and Care Excellence, 2011a).

Furthermore, it is important that a full holistic assessment takes place to identify the development, course and severity of the disorder, including discussing social, financial, environmental, emotional and physical effects on the person's life. Box 2 lists some questions health professionals may ask an individual to determine the severity of their anxiety.

There are two main classification systems used in mental health settings to inform the diagnosis of anxiety:

- ICD-10;
- Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-5), published by the American Psychiatric Association in 2013.

These manuals describe anxiety as varying in degrees of severity by the number of symptoms, along with their duration and frequency. For a diagnosis of anxiety, there is no set number of symptoms that individuals must present with; instead, diagnosis should focus on their frequency, intensity and how thoughts interfere with the individual's day-to-day life.

In general and primary care settings, the GAD two-item questionnaire (GAD-2, shown in Fig 1) is often used to determine anxiety symptoms and their severity. There is reasonable evidence that this scale can be used as a case identification tool (NICE, 2011b).

Treatments

Anxiety disorders can affect individuals at different points across their lifespan and can last from a short period of weeks to several months or years. Treatment decisions are based on how significantly the anxiety is affecting an individual's ability to function in daily life; it may take a process of trial and error to discover which treatments will work best for the specific person involved.

Treatments and support vary from person to person but, generally, fall into two categories:

- Psychological;
- Pharmacological.

These approaches can be used singly or in combination. Most people experiencing symptoms of anxiety are offered the least-invasive interventions (self-help) in the first instance; however, depending on the severity of their symptoms, they may require one-to-one therapy and/or pharmacological management.

Fig 1. GAD-2 screening tool

Over the <u>last two weeks</u> , how often have you been bothered by the following? (Use ✓ to indicate your answer)	Not at all	Several days	More than half of the days	Nearly every day
1. Feeling nervous, anxious, or on edge		1	2	3
2. Not being able to stop or control worrying		1	2	3

NB. A score of >3 would signify clinically significant anxiety symptoms

GAD-2 = two-item generalised anxiety disorder.

Source: Hughes et al (2018)

Table 2. Stepped-care approach and recommended interventions Nature of the intervention Focus of the intervention Step 1. Known and suspected presentations of Identification, assessment, psychoeducation, active monitoring plus referral for common anxiety disorders further assessment and interventions Step 2. GAD; mild-to-moderate panic disorder; GAD and mild-to-moderate panic disorder: individual non-facilitated and mild-to-moderate OCD; PTSD (including people facilitated self-help, psychoeducational groups, self-help groups with mild-to-moderate PTSD) Mild-to-moderate OCD: individual or group CBT, self-help groups Mild-to-moderate PTSD: trauma-focused CBT All disorders: support groups, educational and employment support services, referral for further assessment and interventions Step 3. GAD with marked functional impairment • GAD with marked functional impairment or that has not responded to a or that has not responded to a low-intensity low-intensity intervention: CBT, applied relaxation, drug treatment, combined intervention; moderate-to-severe panic disorder; interventions, self-help groups OCD with moderate or severe functional Moderate-to-severe panic disorder: CBT, antidepressants, self-help groups impairment; PTSD OCD with moderate or severe functional impairment: CBT, antidepressants, combined interventions and case management, self-help groups PTSD: trauma-focused CBT, drug treatment All disorders: support groups, befriending, rehabilitation programmes, educational and employment support services, referral for further assessment and interventions

Stepped-care approach

Source: Adapted from NICE (2011a)

A stepped-care approach is used to organise the provision of services and help people with common mental health disorders, including those with an anxiety disorder. Table 2 outlines the recommended stepped-care approach and interventions for specific anxiety disorders.

Self-help and psychological treatments

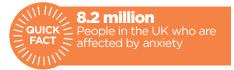
In general, if an individual has been diagnosed with GAD, self-help psychological treatments are prescribed before medication (NICE, 2017). This may involve working through a cognitive behavioural therapy (CBT) workbook, computer course or making use of cost-free mobile applications such as Catch-it, SAM (Self-help for Anxiety Management) or, for younger people specifically, Mindshift (Bit.ly/MindMHApps).

The use of certain mental health apps has proved to be effective at improving symptoms of depression and anxiety (Kwansy et al, 2019). These apps can be used by individuals in their own time, and alongside psychological therapies, to help them identify triggers and develop ways of overcoming those situations that may cause anxiety.

Cognitive behavioural therapy

One of the most effective treatments for anxiety is CBT, which:

- Helps an individual to question negative or anxious thoughts;
- Usually involves meeting with a specially trained and accredited



CBT = cognitive behavioural therapy. GAD = generalised anxiety disorder. OCD = obsessive compulsive disorder. PTSD = post-traumatic stress disorder

therapist for one-hour sessions over a period of time – usually 12-15 sessions for adults (NICE, 2017).

Studies of different treatments for GAD have found that the benefits of CBT may last longer than those of medication; however, there is no single treatment that works for everyone and some patients may benefit from prescribed medication alongside a psychological intervention (Bandelow et al, 2017).

Graded exposure therapy

Graded exposure therapy – which is used to treat any anxiety disorder in which avoidance of a feared stimulant is present – aims to reduce an individual's fearful reaction to the stimulus (Ponniah et al, 2013). Most exposure therapists use a graded approach in which mildly feared stimuli are targeted first, followed by those that are more strongly feared. Exposure therapy has been found to increase cognitive outcomes for some people who experience anxiety disorders, such as obsessive compulsive disorder (OCD), GAD and PTSD (McGuire et al, 2014). This highlights the need to work collaboratively with the patient, as everybody's experience of anxiety and response to treatment will be different.

Other forms of support

Other forms of support for people experiencing anxiety are often available in local communities and the third sector. Peersupport groups, social groups, exercise and changes to diet all have a positive impact on symptoms (Curtis et al, 2009). Furthermore, forming an effective therapeutic relationship with supporting health professionals has been shown to improve clinical outcomes in patients with anxiety (Bandelow et al, 2017).

Lifestyle changes

It has been suggested that people experiencing anxiety should:

- Avoid consuming excessive amounts of caffeine (Richards and Smith, 2015);
- Stop smoking or cut down (Moylan et al, 2013);
- Avoid or reduce alcohol use as this can increase symptoms of anxiety (Bit.ly/DrinkAwareAnxiety).

The nurse's role includes providing advice on health promotion such as healthy eating, good sleep hygiene, relaxation, and incorporating exercise and movement into daily life – all of which can benefit patients who are experiencing symptoms of anxiety.

Pharmacological treatments

Generally, practitioners following NICE's (2011b) stepped-care approach will advise individuals to try self-help or a psychological treatment before prescribing



For more articles on mental health, go to nursingtimes.net/mental

medication for them. When an individual is prescribed medication for symptoms of anxiety, medications that will treat the physical, as well as psychological, symptoms of anxiety should be taken into account; for example, it is relatively common for beta-blockers to be prescribed for physical symptoms such as a racing heart. Before prescribing a pharmacological treatment, health professionals should discuss with patients:

- The different types of medication;
- Length of treatment;
- Any side-effects or possible interactions with other medication.

Selective serotonin reuptake inhibitors are commonly prescribed to treat GAD; these work by increasing the level of serotonin in the brain. Benzodiazepines, which have a sedative effect, may sometimes be used as a short-term treatment during a particularly severe period of anxiety (NICE, 2011a). Several herbal remedies are often suggested for treating social anxiety, such as St John's Wort, but studies have found efficacy to be mixed and more research is needed to fully understand the risks and benefits (Kobak et al, 2005).

Some people may not want to use medication for anxiety and, where appropriate, this choice should be respected and alternative coping strategies offered.

Conclusion

It is essential that nurses working in both primary and secondary care, regardless of their specialism, have a good knowledge and understanding of anxiety, its possible causes, signs and symptoms, treatments and support. A better understanding of the needs and experiences of those with anxiety will facilitate a person-centred approach and providing meaningful recovery-focused care. Box 3 provides a list of helpful, psychoeducation and



Nursing Times Self-assessment online

Test your knowledge with Nursing Times Self-assessment after reading this article. If you score 80% or more, you will receive a personalised certificate that you can download and store in your NT Portfolio as CPD or revalidation evidence.

To take the test, go to: nursingtimes.net/NTSAAnxiety

Box 3. Useful resources

Psychoeducation

- What is Anxiety? information sheet Bit.ly/WhatAnxiety
- What is Anxiety? overviewBit.ly/AnxietyFlowchart
- Fight-or-flight Response fact sheet
 Bit.ly/FightFlightR

Progressive muscle relaxation

 Progressive Muscle Relaxation information sheet

Bit.ly/ProgressiveMuscle

Progressive Muscle Relaxation Script
 Bit.ly/ProMuscleRelaxation

Breathing exercises

- Breathing Retraining information sheet
 Bit.ly/RetrainBreathe
- Deep Breathing information sheetBit.ly/BreathingDeep

relaxation resources, which are free of charge and can be used with patients who are experiencing symptoms of anxiety. **NT**

References

Alladin A (2015) Integrative CBT for Anxiety Disorders: An Evidence-Based Approach to Enhancing Cognitive Behavioral Therapy With Mindfulness and Hypnotherapy. Wiley/Blackwell. American Psychiatric Association (2013) Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition: DSM-5. APA.

Bandelow B et al (2017) Treatment of anxiety disorders. *Dialogues in Clinical Neuroscience*; 19: 2. 93–107.

Bandelow B, Michaelis S (2015) Epidemiology of anxiety disorders in the 21st century. *Dialogues in Clinical Neuroscience;* 17: 3, 327-335.

Baxter A et al (2014) The regional distribution of anxiety disorders: implications for the Global Burden of Disease Study, 2010. *International Journal of Methods in Psychiatric Research*; 23: 4, 422-438. Bystritsky A et al (2013) Current diagnosis and treatment of anxiety disorders. Pharmacy and Therapeutics; 38: 1, 30-57.

Craske MG, Stein MB (2016) Anxiety. *Lancet;* 388: 10063, 3048-3059.

Curtis CM et al (2009) Anxiety and sleep disorders. In: Psychiatric Mental Health Nursing Success: A Course Review Applying Critical Thinking to Test Taking. FA Davis Company. Eisner MD et al (2010) Influence of anxiety on health outcomes in COPD. Thorax; 65: 3, 229-234. Fan L-B et al (2015) Work and home stress: associations with anxiety and depression symptoms. Occupational Medicine; 65: 2, 110-116. Fineberg NA et al (2013) The size, burden and cost of disorders of the brain in the UK. Journal of Psychopharmacology; 27: 9, 761-770 Gottschalk MG, Domschke K (2017) Genetics of generalized anxiety disorder and related traits. Dialogues in Clinical Neuroscience; 19: 2, 159-168 Hoge EA et al (2012) Generalized anxiety disorder: diagnosis and treatment. BMJ; 345: e7500. Hughes AJ et al (2018) Diagnostic and clinical utility of the GAD-2 for screening anxiety symptoms in individuals with multiple sclerosis.

Archives of Physical Medicine and Rehabilitation; 99: 10. 2045-2049.

Jiang L et al (2020) Anxiety boosts progression of prediabetes to type 2 diabetes: findings from the prospective Cooperative Health Research in the Region of Augsburg F4 and FF4 studies. *Diabetic Medicine*; doi: 10.1111/dme.14232

Khan S, Khan R (2017) Chronic stress leads to anxiety and depression. *Annals of Psychiatry and Mental Health*; 5: 1, 1091.

Kobak KA et al (2005) St John's wort versus placebo in social phobia: results from a placebocontrolled pilot study. *Journal of Clinical Psychopharmacology*; 25: 1, 51-58.

Kwasny MJ et al (2019) Exploring the use of multiple mental health apps within a platform: secondary analysis of the IntelliCare Field Trial. JMIR Mental Health; 6: 3, e11572.

Maeng LY, Milad MR (2015) Sex differences in anxiety disorders: interactions between fear, stress, and gonadal hormones. *Hormones and Behavior*; 76: 106-117.

McGuire J et al (2014) Enhancing exposure therapy for anxiety disorders, obsessive-compulsive disorder and post-traumatic stress disorder. *Expert Review of Neurotherapeutics;* 14: 8. 893-910.

Michopoulos V et al (2017) Inflammation in fearand anxiety-based disorders: PTSD, GAD, and beyond. Neuropsychopharmacology; 42: 1, 254-270. Mind (2017) Anxiety and Panic Attacks. London: Mind

Moylan S et al (2013) How cigarette smoking may increase the risk of anxiety symptoms and anxiety disorders: a critical review of biological pathways. *Brain and Behaviour*; 3: 3, 302-326.

National Institute for Health and Care Excellence (2017) Generalised Anxiety Disorder. London: NICE. National Institute for Health and Care Excellence (2011a) Generalised Anxiety Disorder and Panic Disorder in Adults: Management. London: NICE.

National Institute for Health and Care Excellence (2011b) Common Mental Health Problems: Identification and Pathways to Care. London: NICE. Norman I, Ryrie I (2018) The Art and Science of Mental Health Nursing: Principles and Practice. Open University Press.

Ponniah K et al (2013) An update on the efficacy of psychological therapies in the treatment of obsessive-compulsive disorder in adults. *Journal of Obsessive Compulsive and Related Disorders*; 2: 2, 207-218

Remes O et al (2016) A systematic review of reviews on the prevalence of anxiety disorders in adult populations. *Brain and Behavior*; 6: 7, e00497. Rhoads J, Murphy P (2015) Anxiety disorders. In: *Clinical Consult to Psychiatric Nursing for Advanced Practice*. Springer.

Richards G, Smith A (2015) Caffeine consumption and self-assessed stress, anxiety, and depression in secondary school children. *Journal of Psychopharmacology;* 29: 12, 1236-1247.

Smoller JW (2016) The genetics of stress-related disorders: PTSD, depression, and anxiety disorders. *Neuropsychopharmacology*; 41: 1, 297-319.

Walby S, Towers J (2017) Measuring violence to end violence: mainstreaming gender. *Journal of Gender-Based Violence*; 1: 1, 11-31.

World Health Organization (2019) International Statistical Classification of Diseases and Related Health Problems: 10th Revision. Geneva: WHO. Wright KM, McKeown M (2018) Essentials of Mental Health Nursing. Sage.

Zimmerman M et al (2012) Why do some depressed outpatients who are not in remission according to the Hamilton depression rating scale nonetheless consider themselves to be in remission? Depression and Anxiety; 29: 10, 891-895.