Anxiety disorders in old age

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Learning objectives:

After completing this activity, pharmacists should be able to:

- Describe the five types of anxiety disorders and identify differences in anxiety symptoms when they present in later life
- Discuss the current, evidence based treatment of anxiety disorders in older people
- Recognise the symptoms of anxiety in older people and encourage them to seek help from GPs and psychologists

Competency standards addressed:

1.2.1, 6.1.1, 6.1.2, 6.2.1, 6.2.2, 6.2.5, 7.3.2
Introduction

The feeling of anxiety is experienced at some time by virtually all people, mostly involving a feeling of apprehension accompanied by physical symptoms such as palpitations and sweating. Unlike the relatively mild, brief anxiety caused by a stressful event such as giving a presentation, anxiety disorders are chronic and can grow progressively worse if not treated. Pathological anxiety can interfere with sleep, daily activities, social functioning and results in considerable distress. Anxiety disorders are now considered to be the most common mental health conditions, with up to 1 in 5 people presenting to their GP with anxiety symptoms at some time in their life.

Anxiety in older adults

Anxiety disorders have historically been considered a problem of childhood and early adulthood, with a peak onset between 18 and 40 years. Yet anxiety disorders surpass the other well-known mental health conditions in their prevalence among older adults (10-20%), being twice as common as the dementias (8%) and 4-8 times more prevalent than major depressive disorder (1-3%). The prevalence of anxiety is even higher among homebound elderly, aged care home residents and patients who have a chronic illness (over 40%). Many available prevalence rates, however, are likely to be serious underestimates, given the tendency of older adults to downplay psychological symptoms and difficulties with late-life anxiety diagnosis.

Far from being a benign disorder of late life, anxiety disorders in older people can have serious consequences. Chronic anxiety disorders are associated with increased risk and severity of medical illnesses such as cardiovascular disease, asthma and cancer; and contribute to memory difficulties and a higher rate of GP attendances. There is growing evidence that, in the absence of treatment, anxiety disorders are unlikely to fully remit. A recent meta-analysis found that suicide risk among patients with anxiety disorders was higher than previously believed, at levels 10 times the general population. It is important to recognise that suicide rates increase with age, thus it is likely that older adults with anxiety disorders may be at particular risk of suicide.
Diagnosis of late-life anxiety

Despite their relatively high prevalence and significant impact, anxiety symptoms and disorders frequently remain unrecognised and under treated in older adults. For instance, in a British study, only 17% of adult patients with anxiety visiting their GP received treatment. Late-life anxiety, in particular, can often be missed as older adults tend to somatise psychiatric problems and are reluctant to acknowledge psychological difficulties. In addition, older patients often have multiple psychiatric, medical, and medication issues which may mask an anxiety disorder. Unlike ‘solitary’ anxiety disorders seen in the young, there can be substantial symptom overlap with depression (e.g. sleep disturbance, poor concentration) and medical problems (e.g. chest pain, headaches and shortness of breath). A good history taking process is the key to identifying these conditions.

Anxiety disorders in older people present as either a re-presentation of anxiety from earlier in life or cases starting for the first time in old age. Increasing frailty, medical illness, and losses can reactivate anxiety disorders. A lack of social supports, a recent traumatic event and medications, the presence of another psychiatric illness (particularly another anxiety disorder or depression), alcohol and substance abuse and female gender are all risk factors for late-life anxiety disorders (see Table 2).

The diagnosis of anxiety disorders is based on a thorough history gained from the patient and the patient’s family or caregivers, mental state examination, physical examination and lab tests used to screen for physical factors that could be contributing to the anxiety. Screening investigations include complete blood count, fasting serum glucose level, serum calcium level, serum levels of vitamin B12 and folate, thyroid function tests and ECG.

Anxiety disorder prevalence in late life

The next step in assessment is to define the primary anxiety disorder (Table 1). While there is some debate over which anxiety disorder is more prevalent in older people, 90% of presentations are accounted for by either generalised anxiety disorder or phobia. The remaining 10% of anxiety disorders are accounted for by obsessive-compulsive, post-traumatic stress, and panic disorders.
### Table 1. Types and core features of Anxiety Disorders and useful screening questions adapted from²,⁴,¹³

<table>
<thead>
<tr>
<th>Disorder</th>
<th>Symptom Summary</th>
<th>Useful Screening Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generalised anxiety disorder</td>
<td>Diffuse constant anxiety and worry for &gt; 6 months</td>
<td>Are you a worrier?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Do you worry about the ‘what ifs’ in life?</td>
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<tr>
<td></td>
<td></td>
<td>Is it hard to stop the worrying?</td>
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<tr>
<td></td>
<td></td>
<td>Does worrying keep you from falling asleep at night?</td>
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<tr>
<td></td>
<td></td>
<td>Does your worry ever cause headaches, body aches, or tension?</td>
</tr>
<tr>
<td>Agoraphobia</td>
<td>Fear of being trapped in a place or situation from which escape might be difficult</td>
<td>Are you afraid of being alone and unable to get help?</td>
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<tr>
<td></td>
<td></td>
<td>Do you avoid doing such things as leaving your home because of this fear?</td>
</tr>
<tr>
<td>Social phobia or social anxiety disorder</td>
<td>Fear of social embarrassment</td>
<td>Do you worry in social situations that people will judge you negatively?</td>
</tr>
<tr>
<td>(generalised/non-generalised)</td>
<td></td>
<td>Do you avoid social situations because of this fear?</td>
</tr>
<tr>
<td>Specific phobia</td>
<td>Fear of specific object or situation</td>
<td>Do you fear anything specifically, such as animals, storms or heights?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Do you avoid being in situations where you might encounter this?</td>
</tr>
<tr>
<td>Panic disorder</td>
<td>Episodic and spontaneous overwhelming anxiety and autonomic signs</td>
<td>Do you have sudden, overwhelming body anxiety, with shortness of breath, sweating, or tightness in your chest lasting several minutes?</td>
</tr>
<tr>
<td>Post traumatic stress disorder</td>
<td>Traumatic event re-experienced</td>
<td>Do you have anxiety related to a trauma, causing you to have nightmares or flashbacks?</td>
</tr>
<tr>
<td>Obsessive-compulsive disorder</td>
<td>Intrusive thoughts and repetitive behaviours</td>
<td>Do you ever have a thought or image that goes around in your mind like a ‘broken record’ and is difficult to stop?</td>
</tr>
</tbody>
</table>

**Generalised Anxiety disorder (GAD)**

GAD is characterised by persistent anxious mood accompanied by autonomic symptoms, for at least six months.²,¹⁴ Community based studies of older adults have found a high level of co-morbidity between GAD and
other psychiatric disorders. Notably, 60-90% of persons with GAD in these studies were also diagnosed with depression.\textsuperscript{10}

\textbf{Phobia disorders}

Phobias are defined as the persistent and irrational fear of an object, activity or situation resulting in the compelling desire to avoid the phobic stimulus.\textsuperscript{14} Among older people, agoraphobia is the most common of the phobias, representing up to 80% of new-onset cases.\textsuperscript{2} A significant proportion of agoraphobias in old age are of late onset, often in response to a traumatic event such as a fall.\textsuperscript{14} The fear of falling is much more common among older adults than in young patients and it is associated with becoming housebound and worsening depression.\textsuperscript{2}

\textbf{Obsessive-Compulsive Disorder (OCD)}

OCD is characterised by obsessive thoughts and/or compulsive acts that are a significant source of distress, or interfere with social functioning.\textsuperscript{14} OCD tends to appear in young adulthood, and it is unusual for first onset to occur after the age of 50 years. However, it is a chronic and recurrent disorder and a significant proportion of cases may present to services for the first time in old age.\textsuperscript{14} Older persons with OCD describe more themes of sins and religion than infections or contamination compared with younger persons.\textsuperscript{2}

\textbf{Post Traumatic Stress Disorder (PTSD)}

PTSD occurs following exposure to an extreme stressor, and the syndrome includes re-experiencing of the trauma. The disorder can persist for many years, sometimes manifesting itself for the first time in old age.\textsuperscript{14} PTSD is as likely to develop in older adults following a traumatic event as in younger patients, but there are cohort differences in experiences for older adults, such as the world wars.\textsuperscript{2} Traumatic memories may be reactivated by news of war and by personal losses, such as bereavement.\textsuperscript{2} PTSD is expected to assume increasing importance as Vietnam veterans age. At 19 years after combat exposure, this cohort of veterans was found to have a PTSD prevalence of 15\%.\textsuperscript{15}
Panic disorder

Panic disorder is characterised by recurrent attacks of intense fear, accompanied by severe somatic symptoms. Little is known about panic disorder in old age, but evidence from case reports, suggests that its frequency declines with increasing age, and that late-onset cases are symptomatically less severe than those whose disorder started earlier in life. Like GAD, Panic disorder in late life is commonly co-morbid with depression.

Medications and anxiety in late life

Older adults are also more likely than younger adults to be taking multiple medications, some of which may cause or exacerbate anxiety disorders. (Table 2) A careful review of medications is important when evaluating anxiety disorders among older adults, especially before prescribing additional medication.

Table 2. Medications associated with late-life anxiety

<table>
<thead>
<tr>
<th>Category</th>
<th>examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stimulants, sedative withdrawal</td>
<td>Caffeine, nicotine, pseudoephedrine, benzodiazepine/alcohol withdrawal</td>
</tr>
<tr>
<td>Neurological/psychiatric</td>
<td>Antidepressants, levodopa, antipsychotics</td>
</tr>
<tr>
<td>Cardiovascular</td>
<td>Calcium channel blockers, alpha and beta blockers, digitalis</td>
</tr>
<tr>
<td>Endocrine</td>
<td>Oestrogen, thyroid medication</td>
</tr>
<tr>
<td>Pulmonary</td>
<td>Bronchodilators, steroids, theophylline</td>
</tr>
<tr>
<td>Otolaryngeal</td>
<td>Antihistamine, pseudoephedrine</td>
</tr>
<tr>
<td>Musculoskeletal</td>
<td>Analgesics, muscle relaxants, NSAIDs</td>
</tr>
</tbody>
</table>

Non-pharmacological treatment

Psychological therapies such as Cognitive Behavioural Therapy (CBT) are first-line for most anxiety disorders. CBT treatment is based on graded behavioural exposure to anxiety-provoking situations, reducing avoidance, and cognitively restructuring to address the worry. Other psychological strategies include patient education,
counselling, breathing retraining and relaxation to target physical symptoms.\textsuperscript{10}\hspace{1em} In a recent meta-analysis, effect sizes from 19 trials involving psychological strategies for older people with GAD and panic disorders were compared. Psychological treatment for older adults with anxiety symptoms was as effective as in younger adults and was as efficacious as drug treatment.\textsuperscript{3}

Historically, older adults have not been offered psychotherapy and there has been a reluctance to refer older people for specialised psychiatric treatment.\textsuperscript{2,16}\hspace{1em} It should be noted that many older patients prefer psychosocial interventions, mostly due to concerns about the side effects and costs associated with drug treatment.\textsuperscript{7}\hspace{1em} Subsidised psychological therapy is available with a GP referral to a psychologist and a GP Mental Health Care Plan. However, the use of psychological therapies may be limited by the availability of qualified practitioners, their time-consuming nature and the motivation or preferences of some patients.\textsuperscript{4}

\textbf{Medication for late life anxiety}

As there is limited research on the drug treatment of anxiety in older people, guidelines are primarily based on extrapolation from research in younger age groups and are informed by what we know about side effects of psychotropic medication in older people.\textsuperscript{2,14}\hspace{1em} The general principles for the use of medications in older adults are to ‘start low and go slow’.\textsuperscript{2,14}\hspace{1em} These principles are especially useful in the treatment of older persons with anxiety, who worry about taking medications, are acutely aware of and sensitive to side effects, and have high dropout rates.\textsuperscript{2}

\textbf{Benzodiazepines}

Benzodiazepines are the most frequently prescribed medications for anxiety disorders in older adults.\textsuperscript{10}\hspace{1em} Although there is evidence that these medications are effective, at least in the short term, they are not the optimal first-line treatment in older persons.\textsuperscript{4,10,14}\hspace{1em} Firstly, there are a number of risks associated with using benzodiazepines in the elderly, including cognitive impairment, excessive daytime sedation, incontinence, instability of gait, falls and hip
fractures. Further, many patients with anxiety require long-term treatment, however, long-term benzodiazepine use carries the risk of physical dependence.

In general, benzodiazepine use should be reserved for short term for people who have not responded to psychological or drug treatment. If benzodiazepines are used, they should be used for a short term at regular intervals rather than ‘as needed’ to avoid psychological dependence and withdrawal anxiety between doses. Lorazepam or oxazepam is preferred in older people because of their short elimination half-life (10-15hrs), no active metabolites, and their clearance is not affected by age. As a result, these drugs do not have the potential for cumulative toxicity that is associated with longer-acting benzodiazepines, such as diazepam. All patients taking long term benzodiazepines should be offered gradual dose reduction every 6-12 months and encouraged to use psychological therapies.

**Antidepressant therapy**

Antidepressant medication is the drug treatment of choice for many older adults with anxiety. When treating depression that is complicated by a high level of anxiety, there is no consistent evidence than one class of antidepressant medication is better than another. In this situation, selection of an antidepressant is guided by the same principles that apply to the treatment of non-anxious depression. However, it is important to be aware that a high level of anxiety may delay the response of major depression to antidepressant medication.

Anxiety in the absence of major depression is also responsive to antidepressant medication. Data from studies of older patients support the use of the escitalopram, sertraline, and venlafaxine for the treatment of GAD in late-life. Although paroxetine is also effective in treating GAD, this SSRI has greater potential for drug interactions and anticholinergic effects than other SSRIs. Likewise, although imipramine is effective for GAD, tricyclic antidepressants are not recommended because of their capacity to cause orthostatic hypotension, adverse cardiac events and significant anticholinergic effects.
Table 3: Medication recommendations for the treatment of anxiety disorders.²,¹³

<table>
<thead>
<tr>
<th></th>
<th>GAD</th>
<th>Social phobia</th>
<th>PTSD</th>
<th>OCD</th>
<th>Panic disorder</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First line</strong></td>
<td>SSRI*, SNRI*</td>
<td>SSRI*, Moclobemide*</td>
<td>SSRI*</td>
<td>SSRI*</td>
<td>SSRI*</td>
</tr>
<tr>
<td><strong>Second line</strong></td>
<td>TCA</td>
<td>SNRI*</td>
<td>SNRI</td>
<td>SNRI</td>
<td>SSRI, TCA</td>
</tr>
<tr>
<td><strong>Third line</strong></td>
<td>Benzodiazepine</td>
<td>Benzodiazepine</td>
<td>Benzodiazepine</td>
<td>Benzodiazepine</td>
<td>Benzodiazepine</td>
</tr>
</tbody>
</table>

*listed as PBS restricted benefit

The time taken for older patients with anxiety to respond to antidepressant medication is typically much longer than that for depression.¹⁰ Guidelines recommend efficacy be assessed after at least 12 weeks therapy as opposed to 6-8 weeks for depression.⁴,¹³ As antidepressants may be associated with an initial worsening of anxiety symptoms in some patients it is important to take time to titrate, beginning with one-half or one-quarter of the usual starting dose of an antidepressant and increase the dose slowly.²,¹³ Higher therapeutic doses of SSRIs may be required, particularly for OCD and PTSD.¹³

**Buspirone**

When recommended non-drug and drug treatments are ineffective or cannot be tolerated, another medication option for GAD is buspirone.⁴ Buspirone is a non-benzodiazepine anxiolytic with a delayed onset of action. Buspirone may have diminished efficacy in persons who have previously been treated with a benzodiazepine.¹⁰ Therefore, its usefulness in the management of elderly patients with chronic GAD, many of whom have been treated with a benzodiazepine, is unclear. Finally, the twice daily to three times dosage schedule of buspirone increases the risk of poor adherence with this medication.¹⁰

**Conclusion**
Anxiety disorders are common in late-life but often go unrecognised and under-treated. Presentation of anxiety in older people is often atypical, and frequently there are co-existent physical conditions that further complicate assessment and management. There is a wide range of strategies available for treatment of anxiety in older people, however, it is important to be aware of differences in the way treatments should be used compared to younger persons.

References