FEATURE

# Managing women with persistent pain

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**Women frequently present to GPs with persistent, often multiple complaints of pain. Consultations can be challenging, so recognising the many facets of the pain problem and formulating a comprehensive approach to assessment and management may ease the pain for all affected women.**

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Women presenting with complaints of persistent pain pose challenges in general practice. Women report a higher pain intensity than men and are more likely to report persistent pain and experience more pain-related disability.[1] In addition, women are more likely to seek medical attention and use more health care services in trying to manage their pain.[2] They may be less likely to receive evidenced-based pain management and often find explanations for their pain conditions inadequate or unhelpful so may see multiple health care practitioners in their search for pain relief or they just experience the pain in silence.[3,4]

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## Why is pain in women such a problem?

Women report a higher incidence of many pain conditions, including musculoskeletal pain, headache, orofacial pain and chronic widespread pain, which occur between 1.5 and four times more frequently than in men (see Box 1).[3] Women are more likely to experience pain in multiple sites, and having multiple types of pain is a risk factor for a new pain condition.[5] GPs are likely to see many more women than men with pain, and the complexity of their pain may be much greater.

Often the approach to addressing these multiple problems is inadequate. The Cartesian model of separation of the psyche from the body is still applied to pain by many healthcare professionals, as well as pain sufferers themselves, despite pain being an unpleasant sensory and emotional experience. Diagnostic strategies tend to be based on excluding a physical cause for the symptoms rather than seeking an appropriate diagnosis to explain the symptoms. GPs and practice nurses are often uncomfortable talking about symptoms that cannot be explained in biomedical terms. Psychological explanations are only applied once a biomedical cause has been ruled out.[4] This quite often is an unhelpful approach because patients feel devalued by a 'psychological' diagnosis.

## When does persistent pain first present?

The incidence of pain increases from the onset of puberty and throughout adolescence, especially in girls.[6] It is more frequent in 12- to 15-year-old girls, hence the increased presentation of adolescent girls to GPs. Approximately 25% of adolescents' complaints of pain fulfil criteria for chronic pain.[6] Adolescents with multiple pain complaints report the highest intensity pain. A recent systematic review identified family socioeconomic status, parental education, mental health status and time spent watching television as contributing factors.[7] Some types of pain may become chronic in childhood and be predictive of pain persisting into adulthood. It is therefore important to take complaints of persistent pain by adolescents seriously because early intervention may influence long-term outcomes for a significant number, the majority of whom are girls.

## What is the role of sex and gender?

Sex and gender differences underlie pain presentations and the impact of pain on mental health and social functioning. Reasons proposed for the greater incidence of persistent pain in women include sex differences in nociceptive pathways and endogenous opioid systems, lower pain thresholds and differences in the cognitive appraisal of pain and pain behaviours.[3] Gender influences the social acceptability of complaining about pain and seeking help. It is more socially acceptable for women to do both.

The role of oestrogen appears to be important in a number of pain conditions, such as migraine, temporomandibular joint disorder, arthritis and many autoimmune disorders. Periods of low oestrogen levels, such as around menstruation, are associated with higher pain intensity, and the converse applies to high oestrogen states, such as later in pregnancy. In addition, endogenous opioid systems involved in regulating responses to physical and emotional stressors appear to be influenced by oestradiol and seem to be less robust in women.[3] At times, oestrogen appears antinociceptive but at other times it can be pronociceptive.[8] Progesterone also modulates some persistent pain conditions, such as diabetic peripheral neuropathy and some musculoskeletal symptoms. Thus hormonal manipulation can assist in managing chronic pain.

## Visceral pain syndromes – a special case

A common but often hidden cause of persistent pain affecting up to 25% of women aged between 18 and 50 years in whom hormonal influences are particularly important is persistent pelvic pain.[4,9] Many women are reluctant to seek help or talk about symptoms due to the very personal nature of the problem. This is compounded by social attitudes to dysmenorrhoea and pelvic pain. Women are often told it is normal or believe this to be true because they do not discuss their pain with others. Persistent pelvic pain is frequently associated with irritable bowel syndrome, bladder pain syndrome (previously called interstitial cystitis), back pain and headaches. Myths that all women presenting with persistent pelvic pain have been sexually abused also complicate the presentation. Not all women with persistent pelvic pain have been abused and many women who have been abused do not have persistent pelvic pain. Importantly, the neurobiological processes leading to persistent pain are better understood now.

Endometriosis is a cause of persistent pelvic pain that has now been shown to involve new nerve fibre growth in the endometriotic lesions and, along with other inflammatory processes that sensitise the peripheral and central nervous systems, results in long-term changes in nervous system function (central sensitisation) and persistent pain. Cyclical changes in pain severity over the menstrual cycle, often with exacerbation around menstruation and lower grade persistent pain between menses, can lead to anxiety in anticipation of the next episode of severe pain, low mood or depression, sleep impairment and absenteeism. Unfortunately, the search for a 'medical' cause for persistent pelvic pain will be unsuccessful in over a third of women and they may end up in a cycle of re-referral and repeated surgical procedures that may ultimately exacerbate their pain.[4]

Women are more likely to experience other visceral pains not specifically related to the reproductive system. These functional pain syndromes include irritable bowel syndrome and bladder pain syndrome and are examples of visceral hyperalgesia. A peripheral inciting event such as an infection may trigger a response that causes central sensitisation, resulting in persistently lowered pain thresholds and exaggerated responses to normal stimuli. The lower gastrointestinal tract and urinary system share neural pathways with the reproductive organs, which may explain the co-existence of these pain syndromes and the impact of each syndrome on the other.[10] Importantly, treating one successfully will reduce the severity of the other so all pain problems need identification and management.

## What is the interaction between chronic pain and sleep?

Persistent pain frequently disrupts sleep and poor sleep quality exacerbates pain severity. Most women with persistent pain have sleep disturbance, including sleep-onset insomnia and waking multiple times. They complain of unrefreshing sleep, pervasive fatigue, poor

### Key points

- **Women report a higher incidence of pain conditions, multiple pain sites and pain-related disability than men.**
- **A higher incidence of anxiety and depression is observed in women and this exacerbates persistent pain conditions.**
- **Sex and gender differences have been demonstrated in nociceptive pathways, endogenous opioid systems, cognitive appraisal of pain and social acceptability of pain complaints.**
- **Visceral pain syndromes are common but are often hidden causes of persistent pain in women.**
- **A biopsychosocial approach to pain management leads to better outcomes.**
- **Oestrogen and progesterone play important roles in pain modulation and can be manipulated as part of the pain management strategy.**

**1. Pain syndromes or diseases common in women**

**Head**
Headache:
- migraine with aura
- tension-type
- cervicogenic
- postdural puncture

Temporal arteritis
Occipital neuralgia
Trigeminal neuralgia
Odontalgia
Burning mouth
Temporomandibular joint disorder

**Limbs**
Carpal tunnel syndrome
Raynaud's disease
Scleroderma
Complex regional pain syndrome type 1
Piriformis syndrome
Peroneal muscular atrophy
Chronic venous insufficiency

**Viscera**
Irritable bowel syndrome
Chronic constipation
Persistent pelvic pain
Vulvodynia
Bladder pain syndrome
Proctalgia fugax
Oesophagitis

**Autoimmune**
Lupus erythematosus
Multiple sclerosis
Rheumatoid arthritis

**Other**
Persistent postsurgical pain
Musculoskeletal pain
Chronic widespread pain

concentration and daytime napping. Restless legs syndrome and obstructive sleep apnoea are also common. Use of opioid medications can exacerbate these problems.

## How can GPs assess women with chronic pain?

GPs can find women with multiple pain complaints challenging to manage, particularly if no clear biomedical cause is identified.[4] The first step is to allow adequate time for the consultation so that a systematic approach can be taken to obtaining a pain history and performing a physical examination to determine the nature and extent of all the pain complaints. Establishing whether the pain is neuropathic or nociceptive or both will help direct therapy. This can usually be done on history and clinical examination alone. Investigations usually have little to contribute but could include targeted review of hormone and vitamin D levels, ultrasound and bone density studies. A sleep study may be indicated in some cases.

History taking should include an enquiry about childhood events, especially sexual abuse, physical abuse, emotional neglect and bullying. Sexual assault before the age of 15 years is strongly associated with persistent pelvic pain and multiple pain complaints. A family history is also helpful because many persistent pain problems, such as migraine and osteoarthritis, are inherited. Identifying anxiety disorders, depression and other mental health disorders is essential because of their impact on pain. Understanding the woman's social situation will identify influences such as domestic violence, relationship breakdown, financial stressors, education and employment status, which also impact on pain complaints.

## How can chronic pain in women be managed?

A biopsychosocial approach to pain management with functional restoration and self-management as the goals will yield better long-term outcomes. The complexity of some pain presentations requires a team approach. Community healthcare plans can help women access the necessary resources.

### Education about chronic pain

As in any chronic disease management program, education about the condition helps sufferers change their focus from seeking a cure to long-term management. GPs may need to increase their own knowledge about persistent pain. One way is to undertake the online pain education activity available through the RACGP (see Box 2). Patients can access online information and self-help tools, such as *Pain Toolkit Australia,* from consumer organisations and specialist pain management services that offer advice about a wide range of conditions (see Box 3).[11]

### Functional restoration

Many women with chronic pain are deconditioned from prolonged resting to manage their pain. Fear and avoidance of activity are common because even low levels of activity may exacerbate of pain and many people believe this indicates deterioration of their condition or a new problem to worry about. They often end up in a 'boom or bust' cycle. An exercise physiologist or physiotherapist using a rehabilitation approach can devise a graded exercise program aiming to increase general activity. However, a simple walking plan can get many women started using a 'start low and go slow' approach aiming to increase activity by 10% per week.

### Address mental health issues and sleep

Referral of the woman to a clinical psychologist will help to address unhelpful cognitions, anxiety and depression, to identify valued activities and to learn more active coping skills. Specific attention to sleep hygiene is usually necessary. Relaxation techniques, meditation and hypnosis are effective ways of addressing sleep problems and enhancing endogenous pain systems.[12]

### Judicious use of medication

Use of medications has a relatively limited role to play in managing persistent pain. Hormonal manipulation ranging from the oral contraceptive pill through to intrauterine devices should be considered early for some conditions. Simple analgesics such as paracetamol and NSAIDs taken regularly can be effective, especially for musculoskeletal pain, but more often provide one component of a multimodal approach. Although opioids are prescribed frequently, evidence of benefit from their long-term use in persistent pain is limited and the risk of harm is significant. Before starting a patient on an opioid, an opioid risk assessment should be made identifying the goals of therapy with a plan to cease if not beneficial. Adjuvant drugs such as antidepressants, particularly the tricyclics or serotonin

### 2. GP online learning in pain medicine

A joint initiative between the Faculty of Pain Medicine of Australian and New Zealand College of Anaesthetists and the Royal Australian College of General Practitioners supported by the BUPA Health Foundation

http://gplearning.racgp.org.au

**Module 1.** Making an effective pain diagnosis I – a whole person approach

**Module 2.** Making an effective pain diagnosis II – the impact and management of psychosocial factors

**Module 3.** Effective pain management – a whole person approach to managing chronic pain

**Module 4.** Neuropathic pain

**Module 5.** Identification and management of low back pain in general practice

**Module 6.** Opioids in pain management

### 3. Self-help resources for patients

- Australian Pain Management Association – www.painmanagement.org.au Has information on a variety of pain problems. Includes *Pain Toolkit Australia*
- Australian Pain Society – www.apsoc.org.au
- Endometriosis New Zealand – www.nzendo.co.nz
- National Fibromyalgia Association (US) – www.fmaware.org
- Headache Australia – http://headacheaustralia.org.au
- Hunter Integrated Pain Service – www.hnehealth.nsw.gov.au/pain
- Pain Australia – www.painaustralia.org.au
- Pelvic Pain SA – www.pelvicpainsa.com.au
- Pelvic Pain Support Network – www.pelvicpain.org.uk
- YouTube 'Understanding Pain: What to do about it in less than five minutes?' – www.youtube.com/watch?v=4b8oB757DKc

and noradrenaline reuptake inhibitors, and anticonvulsants such as pregabalin are more useful as antineuropathic agents and mood stabilisers. Start with low doses, such as amitriptyline 10 mg at night, pregabalin 25 mg at night or duloxetine 15 or 30 mg in the morning, and increase as needed and tolerated every five to seven days. Many women are sensitive to the side effects of these medications, which may limit efficacy.

## Referral to a specialist

Referral of women to specialist services may be indicated for targeted procedures or specific surgical conditions. However, there is a risk of persistent postsurgical pain that, not surprisingly, affects more women than men and is common after mastectomy (23 to 36%) and hysterectomy (up to 50%).[13] Repeat surgery is an important risk factor for persistent postsurgical pain so must not be undertaken lightly. Other specialist referrals, particularly to rheumatology, endocrinology, sexual health and sexology experts, may be helpful. Finally, referral to specialist pain management services for complex patients is available in both public hospitals and private practice.

## Conclusion

Persistent pain in women, particularly pain that arises from the reproductive organs, is often underestimated and undertreated to the detriment of affected women, their families and society as a whole. Managing women with persistent pain presents a challenge in general practice. However, using an integrated biopsychosocial approach enables better understanding of the individual woman with persistent pain, as well as offering a wider range of management options that result in better outcomes. **PMT**

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