Physiotherapy and women's pain

An overview of evidence-based physiotherapy care

Australian Physiotherapy Association July 2024

Contents

Aim

This document is designed to provide an overview of the effectiveness and cost benefit of physiotherapy pain management by highlighting a number of the most prevalent conditions impacting women.

Introduction

Physiotherapy is central to the treatment of chronic pain, a significant health issue that affects 40 per cent of Victorian women [i].

There is strong evidence demonstrating that physiotherapy is central to addressing the pain burden as part of a multidisciplinary team taking a biopsychosocial approach to pain management. Physiotherapists utilise a broad scope of practice to guide and support women living with pain towards a better quality of life across the life span.

Australian clinical practice guidelines and expert consensus statements recognise the role of physiotherapy in the multidisciplinary management of pelvic pain. These guidelines emphasise the importance of individualised treatment plans, including exercise therapy and pelvic floor rehabilitation, tailored to the specific needs of patients.[ii]

Physiotherapists have the skills, knowledge and expertise to diagnose, manage and treat pain in women. Physiotherapists use clinical reasoning to determine a diagnosis and adopt the optimal treatment for each pathology presented. Physiotherapists are trained in evidence-based practice, evaluating the key issues and utilising numerous potential treatment approaches.

Advanced practice pelvic health and pain physiotherapists are further qualified to conduct examinations and ultrasounds to diagnose and treat pelvic symptoms and conditions.

Expanded public physiotherapy for pain prevention and management

Living with chronic pain is not only debilitating to the individual; it also places a significant economic burden on the nation. Opioid medications are only one option but they are overused and are placing a strain on the health budget simply because of inadequate access to multidisciplinary services such as physiotherapy.[4] Investment in **publicly funded physiotherapy** will advance health, improve care, increase value and reduce wait times for patients.

Patients with chronic and complex pain, mental health conditions or dependence on medication are overwhelming our health system.

The APA is calling on government to expand public physiotherapy for pain management.

PHYSIOTHERAPY
Funding to drive new models of care for **chronic pain** prevention and management

PREVENTION	Prevention and early intervention should be incorporated into the system	**Prevention and early intervention** physiotherapy services for people at risk of persistent pain
ONGOING	Beyond the MBS, a range of existing funding models should also be utilised	**MBS pain-related items** expanded to enable high-value care via multidisciplinary, patient-centred approaches to pain management

Pelvic pain

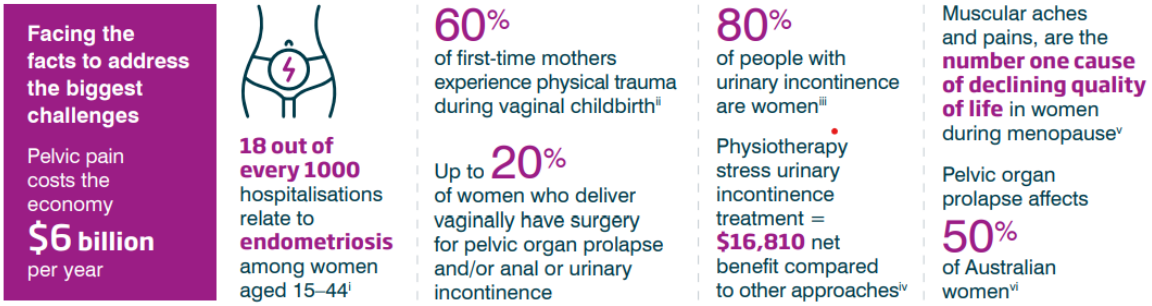
Pelvic pain is a widespread and significant issue among women in Victoria, reflecting the national prevalence that sees almost half (47%) of Australian women having experienced pelvic pain in the past five years.

Pelvic pain can have wide-ranging effects including on mental health, relationships and ability to work with 45% of women with pelvic pain reported needing to take leave or an extended break from work or study, and 31% reporting negative impacts on their relationships with partners[iii].

Pelvic pain is prevalent among women with pelvic floor dysfunction, with a significant association between pelvic pain and gynaecological or gastrointestinal pathologies, and high prevalence of dysmenorrhea, or painful menstruation.

Physiotherapy provides effective evidence-based management of pelvic pain through a variety of interventions tailored to the individual's specific condition[iv].

Physiotherapy has been widely studied and recognised as an effective treatment modality for pelvic pain in Australia, encompassing various conditions including those related to endometriosis with demonstrated sustainable clinical benefits[v].



The following are a number of the most prevalent pelvic pain-causing conditions affecting women that benefit from physiotherapy prevention, diagnosis, treatment and management.

Endometriosis

Endometriosis, a condition often associated with chronic pelvic pain, affects about 1 in 9 women in Australia, leading to approximately 34,200 hospitalisations (in 2016-2017)[vi].

The economic burden of endometriosis is significant costing the Australian economy about $7.4 billion annually, with most of the costs arising from lost productivity and reduced quality of life. In the healthcare sector, it is estimated that $247.2 million was spent on endometriosis-related healthcare in 2020-21, with a substantial portion of this expenditure attributed to hospital service[vii].

Individuals with endometriosis face considerable personal financial burdens. The direct costs include expenses for surgeries, medications, general practitioner consultations, and various treatments such as acupuncture and iron infusions. Many patients report spending between $300 to $400 per month on managing the condition, with some incurring thousands of dollars in out-of-pocket expenses for surgeries[viii]. Additionally, the extended time required to diagnose endometriosis, averaging between 6 to 12 years, exacerbates these financial pressures due to ongoing medical consultations and treatments before an official diagnosis is made[ix].

Physiotherapy is a beneficial adjunctive treatment for managing endometriosis-related symptoms[x] through interventions targeting pelvic floor dysfunction, pain managementxi, and overall rehabilitation. Such treatment can effectively complement traditional medical treatments in alleviating symptoms and improving the quality of life for women with endometriosis.

Birth trauma

Physical birth trauma is common and affects a large number of Australians. Left untreated, physical birth trauma such as perineal tears, urinary and faecal incontinence and prolapse can have long-term and debilitating impacts on many facets of daily living and can lead to serious mental health issues.

There is strong evidence to support the use of pelvic floor muscle training (PFMT) and perineal massage in the antenatal period to reduce the rate of severe perineal trauma and postpartum complications [xii] [xiii] [xiv] [xv]. In addition, regular antenatal exercise including PFMT has been found to reduce urinary incontinence postpartum[xvi] and anal sphincter injury.[xvii] [xviii] [xix] [xx] Techniques such as antenatal perineal massage in addition to health education are recommended to reduce perineal complications.[xxi] [xxii] [xxiii] These interventions need to be appropriately provided by trained clinicians with skill in detecting risk factors.

(Peri) menopause

During (peri) menopause women can experience a number of genital and urinary symptoms and signs associated with a decrease in oestrogen and other sex steroids leading to changes to the vulva, vagina, urethra and bladder. These include discomfort, sexual and pelvic pain, urinary incontinence and pelvic organ prolapse. They also address associated muscular and joint aches and pain, which have the leading reported impact on quality of life.

These symptoms can be a barrier for women to participate in exercise, a modifiable risk factor for other preventable chronic conditions.

Physiotherapy is a critical preventive and first-line therapy for many of the symptoms and conditions associated with (peri) menopause preventing avoidable surgeries and pain.

As an example stress urinary incontinence affects up to 30 per cent of women over the age of 40 with the financial cost estimated at approximately $9,014 per person (excluding the burden of disease).[**Error! Bookmark not defined.**] The average net-benefit of treating stress urinary incontinence with physiotherapy versus other approaches is estimated to be $16,814 per episode of care.[xi]

Pelvic organ prolapse

Pelvic organ prolapse (POP) occurs when one or more of the pelvic organs descend into the vagina. This causes symptoms of heaviness, dragging, bulge or pressure. POP is estimated to affect more than half of women who have had a baby and becomes more common during menopause, significantly affecting their quality of life.

Only one in five women seek medical help for their symptoms.

A suitably trained physiotherapist is able to assist in the management of POP using a number of interventions to address pain.

Musculoskeletal pain

Physiotherapy is an effective treatment strategy for acute and chronic musculoskeletal pain. As clinical leaders in assessment, prevention, management of recovery and rehabilitation, physiotherapists work across many areas including musculoskeletal, neurological, oncological, paediatric and cardiorespiratory practice.

Physiotherapy is central to the treatment of chronic pain as part of a multidisciplinary approach to pain management. Physiotherapists utilise a broad scope of practice to guide and support people with chronic pain towards a better quality of life; they help get patients moving, which is critical to managing persistent chronic pain. They also help patients gain a deeper understanding of all the issues that are contributing to the pain and resultant disability and psychological distress.

Physiotherapy promotes improved function through movement, rehabilitation and exercise. Sedentary behaviours and low levels of physical activity are associated with chronic pain.[xxiv] Regular physical activity may reduce pain severity and increase the ability to perform the tasks required for daily living and recreation in those with chronic pain.[xxv]

Physiotherapy's scope includes weight management via exercise and health promotion. Being overweight or obese is a risk factor for developing chronic pain.[xxvi] A higher body mass index is associated with greater joint and back pain due to the increased pressure on these areas.

Physiotherapy management is effective in reducing pain and in improving quality of life, physical functioning and depression.

Back pain

About 15 per cent of women live with back problems, including lower back pain, the third leading cause of disease burden overall in Australia, accounting for 4.3% of Australia's total disease burden.[xxvii]

In 2020–21, there were 177,000 hospitalisations related to back problems and $3.4 billion spent on the treatment and management of back problems, representing 2.2% of total health system expenditure and 23% of expenditure for all musculoskeletal conditions in Australia.

Hormonal changes, particularly during pregnancy and menopause, can contribute to the increased prevalence of lower back pain in women. Sedentary lifestyle, obesity, and lack of physical activity are significant risk factors for developing lower back pain.

There is substantial evidence for the efficacy of physiotherapy interventions in treating and managing lower back pain.[xxviii] These interventions can significantly reduce pain, improve function, and enhance the quality of life for individuals suffering from lower back pain.

The net cost benefit of physiotherapy in the treatment of back pain is $6,060 per episode of care[xxix].

Osteoarthritis

Osteoarthritis is a leading cause of pain and disability among Victorian women, affecting 10-15 per cent aged 45-64[xxx] with impacts on ability to perform daily activities and reducing their quality of life.

Women are more likely to be affected by osteoarthritis than men, with the prevalence increasing with age. Knee, hip and hand osteoarthritis are most common in women.

Early intervention is key to preventing and managing symptoms of osteoarthritis and avoiding pharmacological and surgical interventions. Lifestyle modifications, and appropriate physiotherapy care as part of a multidisciplinary team are essential to preventing and reducing pain.

Evidence for physiotherapy efficacy in osteoarthritis treatment is strong. For example, in knee osteoarthritis, physiotherapy-led care shows an average pain reduction of 36 per cent, reduced analgesic consumption, reduction in perceived need for surgery, and clinically meaningful improvement in joint confidence[xxxi].

The net cost benefit of physiotherapy for a person with osteoarthritis is $3,077 per episode of care[xxxii].

Greater trochanteric pain syndrome and tendinopathy

Common conditions affecting women include greater trochanteric pain syndrome (GTPS), which produces pain radiating in the lateral hip and can cause debilitating tendon pain and dysfunction. Hormone changes have a negative effect on tendons, which become thinner and more prone to rupture (tendinopathy).

Conservative management and physiotherapy-led exercise are first-line interventions in the clinical management of GTPS[xxxiii] and tendinopathy.

Physiotherapists diagnose and treat the conditions with targeted and graduated exercises, manual therapy and pain relieving strategies. Evidence has demonstrated that ongoing physiotherapy-led exercise is more effective in reducing tendinopathy pain than a pharmacological approach.[xxxiv]

Fibromyalgia

Physiotherapy plays a crucial role in treating fibromyalgia, a condition characterised by widespread musculoskeletal pain, fatigue, and tenderness in localised areas.

The therapeutic benefits of physiotherapy for fibromyalgia include pain relief, improved physical function, improved fatigue, enhanced quality of life and improved mental health.

Physiotherapy interventions are effective in improving various aspects of quality of life for patients with fibromyalgia.[xxxv] These interventions include aerobic exercises, strength training, and flexibility exercises, which collectively help in reducing pain intensity, enhancing physical function and psychological well-being.

Physiotherapy education about active self-management skills for pain can also be incredibly helpful in improving physical function and quality of life, and reducing the distress and disability associated with fibromyalgia.

What physiotherapists do

Physiotherapy offers a non-pharmacological option that can significantly improve the quality of life for patients by incorporating various physiotherapeutic techniques and exercises to reduce pain, improve physical function and psychological well-being including:

Pelvic floor muscle training: Pelvic health physiotherapists help prevent, treat and manage conditions such as pelvic floor weakness or tightness, urinary incontinence, pelvic pain and prolapse using targeted, pelvic floor muscle training (PFMT). PFMT is recommended as a first-line treatment for pelvic floor dysfunctions and is effective in reducing pelvic pain and improving quality of life in women with chronic pelvic pain and dyspareunia.[xxxvi]

Strength training: Incorporating resistance training into the physiotherapy regimen helps in building muscle strength, which can reduce the impact of some conditions on daily activities. Strength training also aids in improving muscle tone and endurance, which can lead to better overall physical function.

Flexibility exercises: Stretching and flexibility exercises help in reducing muscle stiffness and improving range of motion. These exercises also promote relaxation and stress reduction, which are beneficial in managing the psychological aspects of chronic pain.

Aquatic physiotherapy: Water-based exercises, or aquatic physiotherapy, are particularly effective for some patients as the buoyancy of water reduces the strain on muscles and joints, making it easier to perform exercises. Aquatic physiotherapy has been associated with pain reduction, improved physical function, and enhanced quality of life.

Aerobic exercises: Regular aerobic exercises, such as walking, swimming, and cycling, have been shown to reduce pain and improve mood and sleep quality in pain patients. These exercises increase the production of endorphins, which are natural painkillers, and help in reducing fatigue and improving cardiovascular health.

Manual therapy: Manual therapy techniques are used to reduce pain and facilitate recovery of normal movement in those suffering from chronic pain including pelvic pain.[xxxvii]

Education and self-management: Physiotherapists also play a key role in educating about active self-management strategies for pain. This includes teaching strategies like activity pacing (including activity scheduling and graded activity), modifications to posture and body mechanics, and other techniques to manage pain and fatigue. Educating patients on the importance of a balanced diet, regular physical activity, and adequate sleep is also crucial in managing symptoms.

Multidisciplinary approach: A multidisciplinary approach involving other healthcare professionals, such as general practitioners, physiotherapists, occupational therapist, and psychologists, is frequently required to address the multifaceted nature of chronic pain that women experience. This holistic approach ensures that all aspects of the condition, including physical, emotional, psychological and biomedical, are addressed.

Physiotherapy management is effective in reducing pain and in improving quality of life, physical functioning and depression.

Pain physiotherapy treatment incorporates patient-specific education and pain management skills training along with movement-based strategies, focusing on empowering the person in pain to return to activity and function safely.

Physiotherapists **assess** the many different contributors to the experience of pain.

Physiotherapists also screen for **red flags** to identify concerning signs and symptoms and refer to a physician or specialist as appropriate.

Specific and targeted **exercise programs** help to condition and rehabilitate.

Manual therapy techniques are used to reduce pain and facilitate recovery of normal movement.

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