

BULLETIN 19

Chronic Pain in Adults: Challenges in Understanding and Care (July 2021)

CURAC/ARUCC is a non-profit federation of retiree organizations at colleges and universities across Canada. Its objectives are to coordinate activities that promote communication among member organizations, to share information, to provide mutual assistance, and to speak publicly on issues of common concern to its more than fifteen thousand members across Canada.

The Issue

The focus of this bulletin is non-cancer chronic pain associated with diseases or injuries, although there may not be a recognizable source in tissue damage or stress. The terms *chronic* and *persistent* are used somewhat interchangeably to refer to pain that is suffered by people for three months or longer and not responding to efforts to control or alleviate pain. In describing the challenges of chronic pain in their [2021](#) report, The Canadian Pain Task Force noted it is commonplace; an estimated one in five people of all ages live with chronic pain, but this increases to one in three in people who are over 65, and prevalence in people living in assisted living and care facilities is up to 80%. (Hadjistavropoulos et al., 2018) It often leads to serious declines in the quality of life, with chronic pain sufferers reporting the lowest health-related quality of life when compared to others with chronic conditions, including people having cancer and advanced heart disease. This creates substantial caregiver burdens. While a challenge for both men and women, women are the demographic group most-affected by chronic pain because of gender-based violence and conditions experienced primarily by women. Unrelieved pain costs Canadians an estimated \$40 billion per year in health care expenditures and lost productivity. Pain is often inadequately managed with pain assessment often difficult as people hesitate to complain and the ability to self-report pain diminishes with cognitive impairment, so individuals with dementia are at a greater risk for under-recognition, underestimation and undertreatment of pain. (Hadjistavropoulos et al., 2014) A diagnosable source of complaints of persistent pain in disease or injury cannot be identified in a

substantial proportion of people who report persistent pain, often unfortunately leading family, friends and even health care professionals to question the legitimacy of reports of pain.

The Challenges

1. Inconsistent services

Canadian physicians have difficulty treating patients with chronic pain because successful interventions have not been fully developed and there is a lack of national standards. There is inconsistent and insufficient access to pain services in primary care, long wait lists for specialty services and geographic disparities that can delay intervention. Further, it can be challenging to find effective long-term care that does not cause a financial burden for the chronic pain sufferer.

2. Inadequate knowledge of safe and effective treatments

There is mounting evidence that a combination of strategies works well against chronic pain, with research contributing to improvements. Medications, surgery, and other biomedical interventions can ease the pain, but often care must go beyond somatic issues—psychosocial issues need to be addressed and that requires practitioners who can address the potential scope of problems or multidisciplinary care. But non-biomedical, psychosocial therapies are not always covered by insurance or there is limited access. This is an impediment to care that needs to be addressed.

3. Opioid crisis stigmatized prescribing and use of painkillers

Nonmedical use and over-prescribing have stigmatized use of opioids—they can be potent, despite limitations. The emphasis needs to be on ensuring effective pain management rather than restricting access to opioids. Those having late-stage cancer often require opioids for pain relief.

4. Shortage of expertise

People with chronic pain frequently have trouble accessing appropriate care. Better pain education and training programs are needed for physicians, nurses, physiotherapists, pharmacists, psychologists, social workers, and long-term care providers to improve support for people living with pain. We make insufficient use of non-opioid analgesics and other biomedical and psychosocial therapies.

5. Self-healing and prevention

There is a burgeoning growth in the hope of effective self-management of pain. Sometimes pain can only be eased. Pain that arises from damage to the muscles, bones and joints and changes in the nervous system may be amenable to self-

healing through movements that heal the root cause of the pain. Complementary and alternative medicine techniques are gaining traction for pain prevention.

6. Caregiver burden

The magnitude of disability can severely impair participation in family, work, educational and community activities and lead to substantial dependency upon others whose lives become constrained in consequence.

Types of Pain

Formal and informal [terms](#) that describe types and sources of pain are often used to support communication between people with persistent pain and their caregivers.

Acute: An unpleasant multidimensional experience with sensory, emotional, cognitive, and social features that is associated with injury or obvious disease process, usually short in duration (i.e., one week to 10 days).

Chronic: Prolonged pain that lasts at least three months beyond the time of new injury or obvious disease process. It is not unusual for there to be no diagnosable disease process responsible for the condition.

Referred: Sometimes, pain can be felt in another part of the body. An example of this would be when someone feels arm pain with a heart attack. Referred pain can occur with acute and chronic pain.

Nociceptive: The specialized sensory nerve cells called nociceptors trigger a series of responses to a painful stimulus associated with tissue damage or stress. It is usually described as sharp, aching, or throbbing pain.

Neuropathic: Pain that is primarily caused by a disease or injury in the nervous system rather than disease or injury elsewhere in the body.

Nociplastic: Pain that may have had an origin in tissue damage but leading to nervous system changes that outlast healing of the disease or injury.

Breakthrough: For chronic pain, treatment may require using a long-acting pain medication for constant pain management. Sometimes, even though a person is taking pain medication, their pain still 'breaks through' and they require another pain remedy to help ease the pain.

The Biopsychosocial Model

The biopsychosocial model is recognized as the best approach to understanding, controlling and alleviating pain. It acknowledges the complexity of pain and looks at the biological aspects of pain in disease and injury and its physiological and anatomical substrates, the psychological factors (e.g., sensations, emotions, beliefs, and attitudes), and social factors (e.g., interaction between patients and the health care system, engagement with family or employers). Psychological and socio-cultural factors interact with brain processes to influence health and illness. However, most attention in understanding and managing pain is directed to biological features, often to the neglect of psychological and socio-cultural dimensions.

Pain Assessment

Assessment is necessary if pain is to be detected, monitored, and controlled, but wholly satisfactory measures have not been identified. Comprehensive pain assessment typically has multiple components. The first step is to consult with a highly qualified healthcare provider.

Self-report is heavily relied upon as a means of knowing others are in pain and its magnitude and nature, but it has limitations—people tend to under-report pain, people who are elderly tend to be notably stoical, and self-report is also vulnerable to misrepresentation of pain, although this is considered to be rare. Self-reports typically rely on unidimensional scales, e.g, describe your pain on a 0 to 10 scale, but this misses the complexity. More sophisticated assessments focus on sensory, emotional, cognitive, and social features of the experience.

There are no known biomarkers of pain—clinically validated, biological indices of pain in assays of blood or urine or in electrophysiological activity that are both sensitive and specific to pain have not been discovered. Instead, biological reactivity to acute pain primarily is indicative of stress reactions. There is poor agreement between self-report and biological, vital sign measures of pain. (Wei et al., 2019)

Nonverbal measures are typically used in people with communication limitations (intellectual disabilities, cognitive impairment associated with dementia or stroke, etc.). Pain behaviours that can be observed include facial expressions,

vocalizations, body movements, changes in interpersonal interactions, changes in activity patterns or routines, and mental status changes. The Pain Assessment Checklist for Seniors with Limited Ability to Communicate-II (PACSLAC-II) instrument has good reliability and can discriminate between painful and non-painful states. (Hadjistavropoulos et al., 2014)

Pain Management

There is evidence that complex chronic pain does not respond well to unimodal treatments (biomedical, psychosocial, etc.), although the availability and quality of evidence around the effectiveness of any individual therapy for addressing chronic pain is limited. **Hence treatments addressing all components of the biopsychosocial model (physical, psychological, pharmacological, and directed to the social contexts of people’s lives) work better.** Particularly important is recognition of the importance of continuing engagement in life activities. People who recover take active roles in coping and avoid dependencies and inactivity. They remain as best possible engaged in activities with family, friends, and employers. Muscles atrophy from lack of use. Moving regularly keeps our joints and soft tissues more flexible and less painful. Deceptively simple exercises can gently interrupt and reverse the cycle of pain and physical deterioration. Two catchphrases to remember are “use it or lose it” and “motion is lotion”. Pain-relief exercises are available on YouTube. (Esmonde-White, 2016)

Multiple modes of treatment are recognized as the optimal approach for the management of chronic pain by the Canadian Pain Task Force. Table 1 is taken from their [2019](#) report. The Canadian Pain Task Force’s [2020](#) Report concludes that the health system remains ill-equipped to manage pain, and that it should support biopsychosocial approaches and provide timely access to care. Accessibility to public multidisciplinary pain treatment facilities continues to be limited in Canada. (Choinière et al., 2020) Pain science research has shifted physiotherapists’ understanding and treatment of pain. (Parker & Madden, 2020)

The COVID-19 pandemic has disrupted the physical and psychological management approaches to chronic pain, while leaving the pharmacological treatments relatively unchanged. (Lacasse et al., 2021) The [Machealth.ca blog](#) is a resource for locating online resources for self-management of mental health and chronic pain.

Pain is typically the main criterion in taking a decision on end-of-life practices, including suicide and medical assistance in dying (MAID). Ensuring best practice in pain care is of paramount importance. Pain control in palliative care is a separate topic not covered in this Bulletin.

Table 1: Examples of interventions for the treatment and management of chronic pain

| Pharmacological Interventions | Psychological Interventions | Physical / Rehabilitative Interventions | Medical Device / Procedural Interventions | Practitioner Administered / Manual Therapy | Self-Management Interventions |
|--|---|---|---|--|---|
| Medications/ substances that have a physiological effect when introduced into the body. | An intervention that aims to modify thoughts, emotions, or behaviours. | A process meant to enable an individual to reach or maintain optimal physical functioning. | A procedure or application of a medical device meant to treat or manage pain. | Therapeutic activities administered by a health professional. | Individual-led strategies focused on altering cognitive or behavioural factors or one's ability to cope. |
| Examples: <ul style="list-style-type: none"> • Nonsteroidal Anti-Inflammatory Drugs • Acetaminophen • Opioids • Cannabinoids • Antidepressants • Anticonvulsants • Muscle Relaxants | Examples: <ul style="list-style-type: none"> • Individual and Group Psychotherapy • Cognitive Behavioural Therapy • Acceptance and Commitment Therapy • Education Sessions • Mindfulness-Based Interventions • Problem Adaptation Therapy for Pain (PATH) • Support Groups | Examples: <ul style="list-style-type: none"> • Exercise, Movement, and Physical Activity • Yoga • Tai Chi • Activity Modification • Graded Activity Participation and Exposure • Graded Motor Imagery | Examples: <ul style="list-style-type: none"> • Deep Brain Stimulation • Steroid Injection • Trigger Point Injections • Nerve Blocks • Transcutaneous Electrical Nerve Stimulation • Shock Wave Therapy • Prolotherapy • Spinal Cord Stimulation • Low-level Laser Therapy • Dental Splint | Examples: <ul style="list-style-type: none"> • Acupuncture • Massage Therapy • Osteopathic Treatments • Spinal Manipulation • Spinal Mobilization • Physical Therapies | Examples: <ul style="list-style-type: none"> • Life Skills and Self-Efficacy Programs • Support Groups • Personal Practices such as Meditation • Dietary Practices • Relaxation and Breathing Exercises • Pain Neuroscience Education |

The contents of Table 1 do not convey the relative risk or safety of the pain interventions listed. Due to the mixture of compounds in cannabinoid products, persons using them risk loss of ability to live independently if they are also prescribed other drugs that interfere with mental function. Music therapy is an example of a non-intrusive intervention that allows the patient to relax and release pain and stress.

Innovations in Pain Management

The opioid crisis has been a major driving force for innovations in pain management. This has led to a national dialogue and research into the efficacy of non-pharmaceutical treatment of chronic pain. This research offers a powerful weapon in the battle to prolong and improve the lives of people with pain: hope. There is a push to develop and adopt new and alternative therapies to manage

long-term pain. At the same time, there is an ample evidence base supporting the use of opioids as an effective treatment for a minority of people with chronic pain. However, over time, most patients develop tolerance and higher doses are required to produce the same effects as experienced initially. As well, opioids are ineffective with a substantial proportion of patients and for some they create even more severe pain. They require considerable expertise in effective use, expertise not within the competences of many practitioners.

Over the Counter Drugs

Analgesia means the relief of pain without loss of consciousness. Over the counter drugs that are analgesic and fever reducing include: Acetylsalicylic Acid; Acetaminophen; Ibuprofen; and Naproxen. Caffeine is a co-analgesic and sometimes these drugs are combined with caffeine. Acetaminophen is the drug of first choice for initial treatment of chronic pain, and it is often used in insufficient doses before moving on to other drug therapy. Consumers must recognize that gastric distress and erosion is a relatively commonplace and serious consequence of excessive use of many over the counter drugs and they should be used in consultation with physicians. We recommend the website, [Oxford Pain Internet Site](#), as a resource.

Concluding Message

Canada needs a national pain strategy to provide care and lower costs. We need to transform the way health services work together and transform the way health professionals and the broader community understand and deal with pain. This work has begun and an action plan has been published in the Canadian Pain Task Force's [2021](#) Report.

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