Although pain has always been part of human experience, the scientific study of pain management and relief is a very recent phenomenon.

A revolutionary change in understanding pain began with the publication in the mid-1960s of ‘Gate Control Theory’, and with the transformative work of John Bonica, who discovered the effectiveness of multimodal pain management when treating injured soldiers after World War II. Bonica established the world’s first multidisciplinary pain clinic in 1974 in the United States.

In just the last two years there have been global moves to make pain management a high priority within health care policy and practice, driven by both human rights and economic concerns. The Declaration of Montreal, released by the first International Pain Summit in 2011, calls for access to pain management as a fundamental human right.

Professor Michael Cousins, Chair of Australia’s National Pain Strategy (NPS) states, ‘Pain is Australia’s third most costly health problem and arguably the developed world’s largest “undiscovered” health priority.’

A 2007 report by Access Economics and the MBF Foundation found that chronic pain costs the Australian

HOW WE DEFINE PAIN

Laboratory tests, clinical observations and patient self-reports all confirm the subjective nature of physiological pain. Many factors can be in play with respect to pain thresholds, which vary both within and between individuals, as do responses to pain stimuli. Physiological pain has psychological dimensions and may exacerbate existing mental and emotional difficulties.

One definition of pain is ‘an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage’.

Physiological pain may be acute or chronic.

Acute pain can usually be attributed to an identifiable disease or damage process, including injury, surgery and other medical procedures.

Chronic pain is commonly defined as continuous or recurrent pain experienced for three months or longer within the preceding six months. It is a complex biopsychosocial phenomenon that often causes functional impairment.

Chronic pain may be associated with cancer or other conditions. Chronic non-malignant pain (CNMP) is by far the most prevalent, although some chronic pain sufferers may have both malignancies and CNMP.
How widespread is chronic pain?

Access Economics estimates the number of Australian adults experiencing chronic pain at around 3 million (1.4 million males and 1.7 million females, excluding children and adolescents) (2007).

Of these, around 20 per cent (5 per cent of the national population, or over 1 million people) experience significant persistent pain that reduces their quality of life, and almost two-thirds of sufferers report that pain interferes with their daily activities. Associated problems are mood changes such as anxiety and depression, which share neurotransmitters with chronic pain.

Research suggests that some 20 per cent of chronic pain sufferers in Australia receive no treatment at all, and that under-treatment is widespread, particularly for vulnerable sufferers, such as the elderly, people with dementia and people with substance use issues.

The underlying causes of chronic pain can be very difficult to determine. However, the leading identifiable cause is injury, commonly resulting from playing sport, or accidents.

Obstacles to effective treatment

One of the chief obstacles to treatment is stigma. ‘I always acknowledge to patients that I believe their pain is real,’ says Dr Penny Briscoe, Head of the Pain Management Unit at Royal Adelaide Hospital, highlighting one of the most distressing features of chronic pain. When pain and associated limitations continue long after an injury has healed, family, friends, employers and even medical professionals may respond with scepticism or misunderstanding.

Other obstacles are long waiting periods to access pain clinics and specialists; the complexities of multiple medications and unanticipated side effects; lack of access by GPs to proven pain-relieving drugs because they are unavailable on the
Pharmaceutical Benefits Scheme for that purpose (e.g. antidepressants and anticonvulsives); and a funding climate not conducive to innovative research.

Importantly, many patients experience a variety of personal circumstances that limit their motivation or capacity to engage in long-term pain management. Nicole Wiggins, Manager of the peer-based drug user group Canberra Alliance for Harm Minimisation and Advocacy, cautions that it is simply not practical for most of their clients to take on multiple therapies.

What works?

In spite of great strides over a short time in treating chronic pain, there is as yet no ‘magic bullet’. Pain management is an emerging field of study and practice, and firm positions on the best modes of treatment are difficult to defend.

Mild to moderate chronic pain is commonly treated with oral analgesics such as over-the-counter paracetamol and non-steroidal anti-inflammatory drugs, with vitamins, minerals, herbal and natural preparations also widely used. Drugs have limited usefulness. While most people reach for painkillers as a first resort, over time these are unlikely to provide relief because of increasing tolerance, and may cause harm at high doses.

Role of GPs

After trying over-the-counter products the next port of call for chronic pain sufferers is usually their GP, but patients also seek help from medical specialists, allied health professionals and/or alternative practitioners.

‘Psychological therapy, such as mindfulness, meditation and cognitive behaviour therapy, has been shown to work,’ says Penny Briscoe. ‘But we also need to upskill GPs on pain management.’

A promising initiative in this respect is the forthcoming online education program for GPs in pain management, developed jointly by the Royal Australian College of General Practitioners and the Faculty of Pain Medicine, and supported by a $200 000 grant from the Bupa Health Foundation.

Multidisciplinary models

The causes of chronic pain can be very difficult to diagnose. Pain specialists advise that patients should be thoroughly assessed by a team of health care professionals before a treatment regime is planned. The treatments that work for acute pain may not work for long-term chronic pain and may even exacerbate it.
A majority of people with chronic pain experience psychological and environmental changes that they cannot overcome without support, even when their pain diminishes. Pain management experts support a multimodal approach to guide treatment. Associate Professor Lynne Magor-Blatch, Executive Officer of the Australasian Therapeutic Communities Association points out that ‘better results come from psychological interventions such as acceptance commitment therapy, often in combination with medication, whereby a person comes to accept pain as part of their life and the resulting limitations, and then puts in place strategies to reflect their new level of functioning.

‘A holistic approach is key, but we must also be flexible. If medication helps someone to exercise, to have a life, then it’s useful. But we also encourage them to work with a physiotherapist or exercise therapist, because masking pain with medication can result in unknowing physical damage.’

Taking control

A proven approach supported by many pain specialists, including Professor Cousins, is reflected in the title of a widely used Australian manual, Manage your pain. The intensive ADAPT program outlined in the manual does not promise to ‘fix’ pain, but to make it much less troublesome to live with through a long-term approach in which the sufferer takes an active part. The program draws upon many scientific studies and over 20 years of clinical experience and is particularly relevant to people whose pain is unresponsive to treatment.

Opioids and pain management

The National Prescribing Service (NPS) recommends that opioids should only be prescribed as part of a broader pain management plan and introduced on a trial basis. Patients should be carefully selected, clearly understand the goals of opioid therapy, be instructed about proper use and be closely monitored.

This is a crucial message. The past 25 years have seen a marked rise worldwide in the use of prescription opioids to treat moderate to severe chronic pain but evidence suggests that only one in three sufferers benefits. Opioids can be very effective in treating cancer pain and some other types of chronic pain, but for some people and some conditions they are either ineffective or may actually aggravate pain. Adverse side effects from combining different drugs, and individual reactions, such as skin intolerance to morphine patches, can further limit the effectiveness of opioids and other pain relief medicines.

Some patients report being prescribed high doses of opioids from the outset, which over time have no effect in controlling the pain, as well as impairing their ability to function normally.

‘We’ve learned only recently that opioids taken long term at high dosage are implicated in serious physiological damage,’ says Penny Briscoe. ‘They act to suppress hormones such as testosterone and impact upon the hypothalamic pituitary function. Testosterone gives us drive and energy, so without it we become lethargic and unmotivated.

‘Long-term side effects can include compromised immune systems, fluid retention, osteoporosis and infection risk. As you might expect, patients who have managed to reduce or come off high dose opioids report feeling much better.’

Future directions

Much of the current research into pain and its management focuses on the role of the brain in both physical and emotional dimensions of pain, and in the action of drugs of dependence and the negative side effects of painkillers. Studies are also underway into disease-modifying drugs, novel therapies and biomarkers to guide drug development and clinical practice.

The most fruitful way forward would seem to be a three-way marriage between the special needs of each patient, a multidisciplinary coordinated approach to treatment and research, and an adequate allocation of resources to meet these significant challenges.

References

For a full list of references used in this article, visit: www.ofsubstance.org.au.

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www.painaustralia.org.au

NATIONAL PAIN WEEK
www.nationalpainweek.org.au

PAIN MANAGEMENT RESEARCH INSTITUTE
sydney.edu.au/medicine/pmi/

PAIN AND ANAESTHESIA RESEARCH CLINIC
www.adelaide.edu.au/painresearch

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