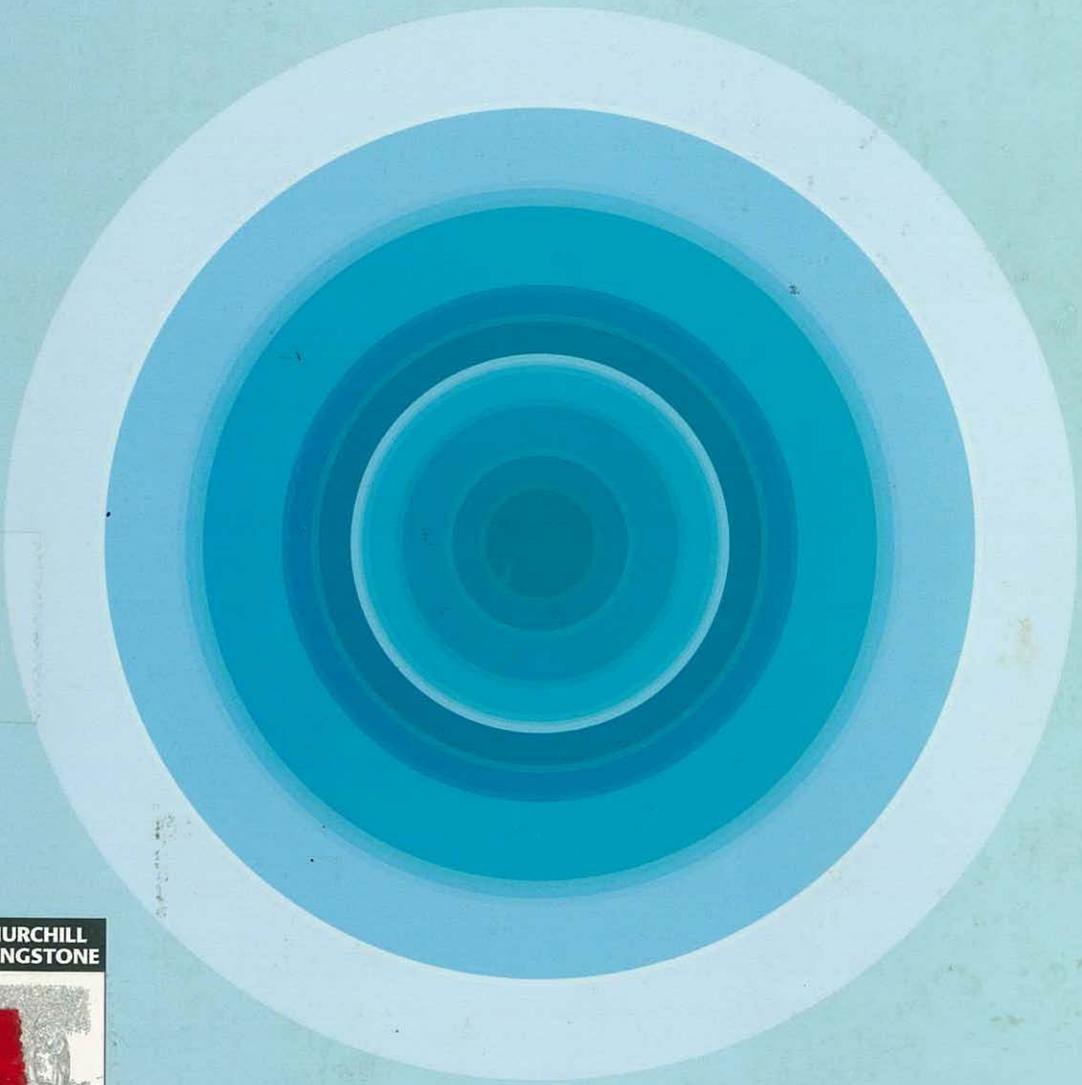


CHANG & JOHNSON

CHRONIC ILLNESS & DISABILITY

Principles for nursing practice



CHURCHILL
LIVINGSTONE



CHAPTER

8

Joanne Tollefson
Karen Piggot
Mary FitzGerald

Management of chronic pain

LEARNING OBJECTIVES

When you have completed this chapter you will be able to:

- recognise the significant psychological, social, physical and economic burdens placed on individuals, their family members and society by persistent pain
- acknowledge the central role the person with chronic pain takes in the management of their health
- identify the modalities of health service provision available to people with chronic pain
- appreciate the range of therapies available for the management of chronic pain
- discuss the dynamic role that nurses have as supporters of self-care agency.

KEY WORDS

chronic pain, educative supportive roles, pain assessment, self-care, self-management

INTRODUCTION

Chronic pain is suffered by a significant number of people from all age groups. Most of these people manage the pain themselves in a range of positive and sometimes negative ways—they take analgesics and remedies and modify their lifestyles to accommodate changes that may accrue in elements of life such as function and affect. People who suffer from chronic pain classically refer themselves to general practitioners who now act as agents for a broad range of conventional and complementary specialists to manage chronic pain. The majority of nurses become involved in the care of people with chronic pain when it affects function or psychological wellbeing to such an extent that independence in activities of living

(Roper et al, 2000) or self-care needs (Orem, 2001) are adversely affected. These nurses take a supportive and educative role to enable people with chronic pain to recognise positive strategies that ameliorate their state of pain and maximise their independence.

However, there are nurse practitioners who specifically work with people who are referred to pain clinics and there are specialist nurses who work with people with conditions that are particularly associated with enduring pain, for example people with cancer and specialists in oncology nursing, or people with long-term angina and specialists in cardiac rehabilitation nursing. These nurses work in multidisciplinary teams and have extended knowledge of the aetiology of chronic pain and skills in the assessment, therapy and evaluation of chronic pain management.

This chapter is written for nurses and other health professionals as a broad overview of a complex topic. There is no intention to delve into the specifics of specialist diagnosis and treatment but rather to draw a picture of the size and the nature of the problem, and the array of therapies that are available to suit particular individuals with chronic pain. While we refer to nursing and nursing theories of self-care, we recognise that the management of chronic pain is essentially in the hands of individuals and that support for them comes from a range of health professionals whose roles can overlap to a large degree in the offering and delivery of a person-centred philosophy of healthcare service.

CHRONIC PAIN DEFINED

Chronic pain has been identified as an independent entity, rather than a symptom, for a relatively short period of time. Until the middle of the 20th century, chronic pain was thought to be acute pain that did not resolve or was psychosomatic in origin. Over the intervening half century, research by physicians and neuroscientists has altered this view of chronic pain. In 1986, the International Association for the Study of Pain (IASP, 1994) defined chronic pain as

... an unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of such damage that lasts continuously or intermittently for a period of 6 months. The cause of chronic pain is often unknown (p. 24).

This definition has since guided both the research and the treatment of people who live with pain. Some experts believe that pain needs to be present for only three months to be termed chronic since that period is the usual time for healing of injury to be completed. From an experiential perspective, anyone who has endured pain will know that three months is a very long time and that this type of argument regarding time may seem irritating and somewhat unsympathetic to the people who have chronic pain, and indeed their families, who are waiting for long-term plans for treatment and management to begin. Undoubtedly, as more is learned about chronic pain and the people who endure it, other definitions and understandings of this phenomenon will evolve.

Chronic pain is the same as persistent pain. Chronic malignant pain is chronic pain that is progressive. It is expected to increase in intensity or duration, or both. It is usually due to the effects of cancers, but can arise from a number of non-neoplastic diseases, for example some types of rheumatoid arthritis, ankylosing spondylitis or multiple sclerosis. Chronic non-malignant pain is chronic pain that is not expected to progress or to progress very slowly over a long time frame. Low back pain, osteoarthritis and neuropathological pains such as those encountered in spinal damage or in diabetes are examples of chronic non-malignant pain. There are also other categories of chronic pain—neuropathic pain is complex pain that commonly involves dysfunction of nerve fibres; nociceptive pain is biological, resulting from harm or disease to structures in the body; and idiopathic pain is pain for which no pathophysiological basis can be found.

The pathophysiology of chronic pain is still a very topical issue and ongoing biomedical research aims to clarify our understanding of the mechanisms and issues involved in the initiation and maintenance of pain over a long period of time. Specialist physicians, neurobiologists, psychologists, psychiatrists, physiotherapists, dentists, gerontologists and nurses use research to expand knowledge of this complex condition. The biopsychopathological explanation of the basis of chronic pain development is complex and additional information is added on a daily basis. One of the most salient points to emerge recently is the neuroplasticity of the brain and how ongoing acute pain actually alters the functioning of some parts of the brain to embed pain and foster a chronic problem. This is supported by epidemiological studies, which demonstrate that people who suffer from chronic pain have lower pain thresholds and higher sensitivities to pain (Smith et al, 2006). For a thorough explanation of the chronic pain phenomenon, a pathophysiology textbook should be consulted.

CASE STUDY 8.1

This case study is used to show a typical professional approach to diagnosis and treatment of a person with chronic pain. It illustrates the importance of therapeutic communication and a holistic approach. The breakthrough in the management of this person is accurate diagnosis of the cause of the pain and pharmaceutical therapy associated with an understanding of the emotional turmoil of the person involved. The nursing role is a combination of diagnosis, support and education and continuing evaluation.

SOCIAL HISTORY

Mr B, a 69-year-old retired man living in north Queensland, is married with four grown children. His wife is very supportive of Mr B's condition. He does not drink or smoke and has no significant family history.

RELEVANT MEDICAL HISTORY

Depression, anxiety, hypogonadism

PRESENTING PROBLEM

Mr B presented to a neurologist for investigation of left arm parasthesia and dyesthesia of left thigh—chronic radiculopathy (spinal nerve root disease). He was diagnosed at that time with multiple sclerosis following positive results on Magnetic Resonance Imaging (MRI) and lumbar puncture. Prior to diagnosis Mr B developed recurrent left upper quadrant abdominal pain. This was diagnosed as pancreatitis and led to a distal pancreatectomy for a possible lesion on the tail of the pancreas with multiple subsequent operations for removal of collections. Sepsis followed.

This pain was extensively investigated in 1994, when Mr B had CT scans and endoscopic retrograde cholangio-pancreatography as well as pancreatic biochemistry tests. All resulted in 'no abnormality detected'. Mr B was admitted to a private hospital for investigation of severe back pain a short time later.

Mr B was depressed to the point of considering suicide. His medications at this stage were:

- Baclofen 20 mg BD
- Prozac 20 mg daily
- Kapanol 50 mg BD
- Pethidine 150 mg Intramuscularly PRN Q4H
- Maxalon 10 mg PRN 4/24

CASE STUDY 8.1—cont'd

An epidural catheter was inserted with an infusion of Marcain 0.25% and Fentanyl to provide pain relief. The catheter remained in situ for seven days before it was removed. It was believed that the pain may have been the result of plaque deposits on the spinal cord. Following this admission Mr B was transferred to the public hospital for implantation of an intrathecal catheter with a drug delivery pump. The overall goal was to reach a therapeutic level of drug administration where pain was kept at an acceptable level. Post-operatively some technical complications occurred while titrating the dose. (An intrathecal pump will not eliminate all pain but with it working at a therapeutic rate the pain will be decreased to a manageable level.) Pain management strategies developed in conjunction with allied health staff experts in pain management were implemented. As part of the team approach to his pain management Mr B was referred to a clinic psychologist. During his consultations it was uncovered that Mr B was grieving for the 'life' he had lost and his altered relationship with his wife. He felt that his condition was causing his relationship to break down because his wife needed to take on more of the day-to-day running of the household. He mourned the loss of responsibility and control that he had had at work prior to the chronic pain. He felt he could no longer make a difference at work.

By 2002, the pain was no longer at a manageable level and the intrathecal pump dose per day was titrated to 3.0 mg/day of morphine with clonidine added. Clonidine has an analgesic effect mediated at the alpha 2 adrenoreceptor sites, which are located in the superficial layer of the dorsal horn of the spinal cord (Murphy, 2006). It inhibits noradrenaline release from adrenergic nerve terminals and thus slows transmission across the synapses.

The prescription was changed numerous times and Mr B experienced exacerbations of his multiple sclerosis, which required admission into hospital or bolus doses of the morphine/clonidine that were programmed into the intrathecal pump by the pain management specialist. Mr B has now been on a stable dose of 11.5 mg/day of morphine, although he continues to experience some leg pain. MRI results show compromise of the bilateral neural foraminae at L5–S1.

The attending gastroenterologist now believes that Mr B's presenting pain may never have been pancreatic pain but was much more likely to have been associated with the onset of the multiple sclerosis. Although Mr B's pain levels have increased over the past ten years, he has used many positive management strategies to deal with it. With the assistance of his general practitioner and the pain management team he has been able to travel extensively around Australia by pre-arranging his pump refills in other centres across the country. Mr B has learned to manage his chronic malignant non-cancer pain and is enjoying a full life.

THE INCIDENCE AND IMPACT OF CHRONIC PAIN

The incidence of chronic pain was estimated at 17.1% (males) and 20% (females) of the adult Australian population, rising to 27% of adults over 65 years of age (Blyth, 2001). Chronic pain also affects significant numbers of children and adolescents, although population statistics are harder to come by for this group than the elderly. In Australia, with an estimated population of 2.7 million over the age of 65 years, 27% equates to 729,000 people (ABS, 2007) and in New Zealand, with an estimated population of 450,426 over 65 years, 121,615 (Statistics New Zealand, 2004). The incidence of chronic pain is of course underestimated because a number of people manage or endure the pain in their own way rather than seeking assistance and therefore avoid being registered as a 'chronic pain' statistic (Mayer et al, 2001). Moreover, Dewar (2006) makes the important point that the incidence of chronic pain rises with age and therefore the percentage of over 85s with chronic pain is higher than the 27% quoted above.

Chronic pain was estimated to cost Australian society somewhere in the region of \$10 billion annually by Aoun, writing in 1998. This is only the monetary cost and does not take into account the social, cultural and intellectual contribution that is lost through the disengagement from the mainstream of work and social intercourse that can occur when people are stricken with disabling and chronic pain.

BEHAVIOURS AND EXPERIENCES ASSOCIATED WITH CHRONIC PAIN

Identifying the behaviours that lead to chronic pain is a complicated matter because chronic pain is classically associated with either no known cause, or a plethora of pathological conditions that result from illness or trauma. Without the power of hindsight there is little health advice that can be added to general messages to learn healthy habits from an early age in order to prevent a range of illnesses that may be associated with the development of chronic pain. In particular, healthy eating, regular exercise, good posture and avoidance of obesity, smoking and substance abuse may ward off illness or place a person in the best possible condition to cope with chronic pain should it develop. Trauma is another precursor to chronic pain; it is wise to follow health warnings and laws about wearing protective clothing and limiting alcohol consumption.

It is more usual to discuss behaviours that support the best possible management of chronic pain rather than prevention. Early interventions at the onset of chronic pain cover such things as learning how to manage pain and the effects and side-effects of analgesia, and how to continue to move and exercise in ways that do not exacerbate pain but keep muscles active and limbs flexible. Distraction, guided reflection and relaxation techniques may help some people and are a matter of personal choice. Nurses and other health professionals can reach an understanding of the psychological effects that chronic pain has on emotional wellbeing and the secondary effects of these on relationships with others by developing insight and self-understanding.

On a really practical note, navigating the maze of health information and choosing the best available therapies and therapists are increasingly becoming issues for health consumers. Nurses and other health professionals can facilitate learning and enable the person to discriminate.

Understanding the importance of psychological (cognitive and behavioural) factors in the development of chronic pain assists the person, their associates and health professionals to improve the care given to people who suffer chronic pain. Each person is different and will perceive and react individually to the insult of pain. How pain is perceived and the individual reaction to pain will often shape the experience of that pain. For instance, fear-avoidance (that is, the fear of injury due to movement, and avoiding movement), catastrophising (negative thinking and worry in response to pain) and depression are more likely to result in greater disability (Boersma & Linton, 2006). Catastrophising has been demonstrated to diminish with educational level, indicating that lower levels of formal education act as a risk factor for adverse pain outcomes (Edwards et al, 2006).

Negative emotions or emotional reactions to pain partially define the painful experience. Vulnerability to and the ability to regulate emotional experiences partially determine the reactivity of the person to their pain (Hamilton et al, 2007). Anxiety and depression are the major negative emotions that influence the pain experience. Anxiety stimulates the autonomic nervous system, leading to symptoms such as tachycardia, tachypnoea and elevated blood pressure. Over time, the autonomic arousal may result in symptoms perceived as pathological (e.g. headache, gastric upset) as well as the severe distress that accompanies ongoing anxiety. This results in more anxiety and avoidance of physical activity, which will eventually de-condition the person, leading to disability. Anxiety also affects cognitive function, such as memory and decision making (Dick & Rashiq, 2007).

Depression is considered a co-morbidity of chronic pain because of the significant overlap of brain regions affected by these two conditions. Many people with chronic pain develop depression and 65% of those with depression have pain as a symptom (Williams et al, 2006). Those people with chronic pain who do develop depression have greater associated disability with higher levels of reported pain, less physical activity, lower levels of psychosocial functioning, feelings of helplessness and loss of control, and poorer response to treatment (Adams et al, 2006).

Frustration, fear and anger are also typical emotions associated with chronic pain. Suffering is a combination of negative emotions (anxiety, depression, frustration, fear and anger) and negative ideation (that is, the inability to endure the pain, perception of the lifestyle interference, inability to reduce the pain and likelihood of not finding a cure) (Wade & Hart, 2002, p. 31).

Adolescents who live with chronic pain are often not able to work through the developmental tasks of their age group. Rather than striking out and establishing an independent lifestyle, those who live with chronic pain may remain dependent on their parents and in fact may increase their dependency. Their socialisation is also curtailed due to the inhibiting influence of pain, treatment and the associated psychosocial aspects of chronic pain, such as depression. Assessment is often difficult. The young person is often angry or embarrassed and may not be willing to share information with the healthcare professional.

Moral judgements may be made about the veracity of an individual's pain that are based on the social and cultural context of the person's response to pain. In the past (hopefully) this has led to labelling of individuals as fraudulent when they claim pain over time for which there is no medical explanation. This stigma, attached to those who report pain without an identifiable pathological basis, is greatly feared, in part because illness is defined by a society that values the medical model of healthcare. If medicine is unable to identify and treat the pain, either the person may be seen to be exaggerating for gain or the pain is seen as psychological. Patients with chronic pain are often very relieved if they can have a physical diagnosis of the cause of the pain as this is seen to 'legitimate' their pain. Although the incidence is low (Hill & Craig, 2004), there will always be those who 'malingering' (exaggerate their pain behaviour for some sort of personal gain). Determining the legitimacy of pain behaviour is a difficult clinical and ethical decision (Sullivan, 2004); it may also be a medico-legal question of whether the person is engaging in fraudulent behaviour for gain (Mendelson & Mendelson, 2004).

Case study 8.2 is a story of Paul S's experience with chronic back pain. His was a long story of struggle for recognition and compensation. The story deals with trust, belief, self-stigma and emotions of fear and anger associated with chronic back pain. The style of this case study differs from that of Case study 8.1, which was presented from the point of view of a health professional. Case study 8.2 is taken from phenomenological study of the experience of chronic illness in rural Australia and gives the person's view.

CASE STUDY 8.2

Paul S was on sickness benefits and had ceased work. He lived outside a regional city in Victoria and was booked in to have an operation in Melbourne. Before he was due to go to Melbourne the Department of Social Security sent him a letter, requiring him to present at the local office of the Department of Social Security on 9 April, which was a Friday. So, wanting everything to be right for the family while he was away, he went into the Department on the preceding Monday.

He was in the queue and recognised another man in the queue, whom he knew to be a 'bludger'. He wanted to appear different from this man but how could he?—his back pain was not obvious to those around him. Paul resigned himself to the fact that he and the man looked remarkably similar. 'I am here because I am sick,' he cried inwardly, with enough passion to make his heart race and his back ache.

CASE STUDY 8.1—cont'd

He shuffled from side to side, trying to ease the pain. There were no chairs anywhere; he could not take a walk around because he would lose his place and have to start queuing all over again.

After over half an hour, which seemed an eternity, his turn came. He held his letter out to the clerk behind the glass-fronted counter and before he could open his mouth to give the prepared apology for presenting earlier than the day stipulated in the letter, it was snatched from his outstretched hand. It disappeared under the hole in the glass screen. The clerk glanced at the letter and with a resigned look on his face said in a singsong tone, 'This says to bring it in on Friday.'

'I know,' Paul replied mirroring his tone, 'but Friday is Good Friday. There won't be anyone here.' Paul knew he had irritated the man.

'Well, you can't bring it in today.'

'That is okay,' Paul said, 'when shall I bring it in?'

The clerk thought about this and said, 'Tuesday after.'

Now the frustration was beginning to well up inside Paul. He described it, 'The pain in my back was like two hard bricks pressing down, my stomach ached and my teeth were clenched.' He really wanted to cry but that was unthinkable—that, or reach through the glass hole and throttle his tormentor. People were shifting in the queue behind Paul. He explained that he was going away to Melbourne on Sunday.

'Well, take it to an office in Melbourne,' the clerk responded.

'I will be in hospital,' Paul replied. 'Gotcha!' he thought. 'Can I bring it here on Thursday?' he asked.

'No,' was the clerk's belligerent reply.

Paul asked for the manager but there was not one. He tried asking for the clerk's name but he would not give it to him. Paul felt that the people in the queue were enjoying the scene; he had to give up but before he did so he clenched his fist tightly and shot it towards the clerk's jaw. Stopping just at the glass, he opened both hands and placed them flat on the glass which divided them. The man looked scared and Paul was ashamed, defeated, disgusted and so angry. His hands slipped slowly down the glass and dejectedly he walked to his rickety old ute for the 20-km jolting journey through the bush with nothing to offer his family.

The concept of legitimation is bound up with trust. Often general practitioners are reluctant either to refer the person to specialists or to order more and more expensive diagnostic tests because they are uncertain about the usefulness of these measures in the management of the person's pain (Parsons et al, 2007). Indeed, it was many years after Paul first sought medical attention for his chronic back pain that a diagnosis was eventually made and surgery offered as a last resort. However, to retain the person's trust, doctors need to be seen to be exploring all options to find a diagnosis and treatment. This eventually adds to the financial burden of chronic pain, and erodes the person's trust as well. If a cure or full explanation of the pain is unavailable, people search through their own lives to come up with some sort of explanation for the pain. Accidents, hereditary weaknesses, childhood illnesses and normal ageing are used to give meaning to the pain within the person's life (Richardson et al, 2006b). People in pain need the power of information and knowledge to challenge pain and to consider new models for viewing what happens during pain. Once they have learned about the processes involved they can perhaps follow a more scientific route to recovery (Butler & Mosely, 2003).

Much of the care of those who live with chronic pain falls onto the person with pain and their family. Community nurses, general practitioners and, where available, the professional

staff in specialised pain clinics are increasingly recognising the need for supportive and educative models of care for people with chronic pain in the community so that they do not feel they are reliant on services that are not readily available or do not exist. People who live in rural and remote areas of our countries often have to rely on the very limited resources of the healthcare system in their area, as travel is often too traumatic and expensive to contemplate. People who live with chronic pain are also occasionally admitted to hospital or will present at community health centres or general practices for conditions other than their chronic pain. Chronic pain will complicate their treatment and care and necessitates an understanding of the basics of chronic pain for all nurses.

CULTURAL DETERMINANTS OF THE EXPERIENCE OF CHRONIC PAIN

Culture is significant in shaping beliefs about pain and its meaning, in dictating the acceptable pain behaviours and giving meaning to the pain experience, and thus affects the individual's perception, reporting and expression of pain. The strategies for caring for people of diverse cultural backgrounds suggested by Davidhizar and Giger (2004) include utilising assessment tools to assist in measuring pain; appreciating variations in affective response to pain; being sensitive to variations in communication styles; recognising that communication of pain may not be acceptable within a culture; appreciating that the meaning of pain varies between cultures; utilising the knowledge of biological variations and developing a personal awareness of values and beliefs that may affect responses to pain (p. 47). This paper by Davidhizar and Giger is certainly of interest to all nurses who care for patients of different cultural backgrounds.

McGrath (2006) undertook a qualitative research project in Australia's Northern Territory, which found 'a complexity of cultural relationship rules determine who should and should not be directly involved in providing physical care' (p. 1). It also found that Aboriginal peoples may have a higher threshold of pain and are less likely to complain—especially the men, who do not wish to appear weak. Pain management is influenced by the cultural concerns of 'pay back' and 'blame'. There is a mistrust of Western medicine, which may be exaggerated by misunderstandings that can occur around the whole notion of pain relief, a quite natural fear of '... the administration, side effects and ramifications of medications' and a fear that mainstream medicine will speed up the process of dying, preventing the transfer of traditional knowledge and secrets that occur during the end-of-life stage (p. 1).

According to Fenwick and Stephens (2004), the absence of cultural boundaries between health professionals and clients aids in the development of successful pain management strategies. Professionals need to be culturally aware and sensitive and wherever possible defer to the person with chronic pain or their family and friends for cultural interpretations. Wherever possible, help should be sought from professionals with inside understanding of cultural norms; an obvious example is Indigenous health workers in Australia.

Fenwick (2004) also points out that the environment of the client in pain can influence how they express themselves. The following two questions are pivotal in helping individuals to understand themselves and their preferred way of being:

- 1 How do I want to show my pain?
- 2 How will others expect me to express my pain?

Strategies developed and learned for the management of pain can all but disintegrate should a cultural block arise between the client and the health professional. Eckerman et al, (1992, cited in Fenwick, 2004) have identified what they call 'cultural danger' or 'unsafe cultural practice'. In order to achieve 'cultural safety', health professionals must be

educated within an ethos of cultural relativism—that is, people’s behaviour and language should be interpreted from their own cultural perspective rather than the culture of others (McMurray & Smith, 2001). The work of Fenwick (2001) and McMurray and Smith (2001) encompass a holistic reflection within the context of family, community and the customs, attitudes and beliefs and the preferred ways of doing things in particular cultures. Preparation for professional practice in Australian and New Zealand universities now incorporates subjects about the nuances of many cultures and in particular the customs and traditions of Aboriginal and Torres Strait Islander peoples of Australia and Māori people of New Zealand.

Classic expressions of pain by central Australian Aboriginal people have been listed by Fenwick (2004, p. 222):

- infrequent words
- subtle body language
- physically lying on their side with eyes averted
- head turned away on questioning
- hiding their head and body under a blanket
- feigning sleep (a process of centring within to control the pain experience).

However, the emphasis in contemporary educational programs should be on understanding the principles of cultural safety and respect rather than learning a litany of practices that may differ between communities within a culture. The success of these programs can only be assessed by these culturally diverse people in their dealings with health professionals.

ASSESSMENT AND EVALUATION OF CHRONIC PAIN

The assessment of people with chronic pain is complex and challenging, involving medical, psychosocial, cognitive, neuropsychological and behavioural factors. Nursing assessment of chronic pain begins when the person is first sighted, as does any sound assessment. It is possible to observe such things as movement, gait, mood, responsiveness, any physical deformity and abilities when the assessor first sees the person. Assessment then continues during the interview, with the use of open and closed questions to determine the person’s perception of their pain (location, intensity, quality, radiation); associated symptoms; initiating or exacerbating factors and ameliorating factors; any current treatment and its effectiveness; their over-the-counter drug use; any complementary or alternative treatments used, and their effectiveness and effects on the person’s ability of the person to carry out activities of living; or to meet their self-care needs, if they are following a self-care model (Orem, 2001), which include their social relationships and their mental wellbeing. Physical assessment—inspection, palpation, percussion and auscultation as needed—rounds out the data gathering.

McCaffery and Beebe (1989, p. 7) define pain as ‘... whatever the person says it is and occurring wherever they say it does’. This definition emphasises the subjective nature of pain, particularly chronic pain, since most of the objective signs are not evident or are so subtle as to be invisible. The personal accounts of the nature, intensity and location of pain are prime sets of data in the assessment process.

The presence of one or more of co-morbidities, sensory impairment, cognitive impairment and frailty usually compounds assessment of chronic pain in the elderly. Information may need to be gathered from carers and/or partners to supplement the person’s statements. Assessment should be undertaken during movement as well as at rest. Simple reports of pain are not sufficient; the functional impairment (ability to undertake both basic and

advanced activities of living), psychosocial disruptions, cognitive functioning, beliefs and knowledge about pain, medical status and medications being taken and the person's expectations about their pain control all need to be discovered (Hadjistavropoulos et al, 2007). Older people may sometimes under-report pain so that they do not worry their families or carers, or to avoid loss of their independence (Girdhari & Smith, 2006).

Challenges regarding assessment of chronic pain are compounded in the case of babies and young children who have yet to develop the language to express abstract concepts such as pain or indeed to differentiate between physical and emotional pain. Pain may be detected by careful observation of facial expressions, movements and the sound of their cry. Self-reports of pain using pain diaries, the faces scale or a visual analogue scale are used with school-aged children.

PAIN SCALES

Objective assessment of chronic pain is not an easy task but it must be undertaken to establish the presence of pain, assess the impact of pain and determine the success of an intervention or treatment plan. Often, the physical signs of acute pain, such as tachycardia, hypertension, diaphoresis and even facial expression, no longer give cues as to the amount of pain or the distress caused. Individuals vary in their ability to judge facial expressions, making this an unreliable indicator, although with training and practice, accuracy in this area can improve dramatically (Hill & Craig, 2004). However, despite these difficulties there has been much research to develop pain scales for use with people in all age ranges which are valid and reliable. The *Handbook of Pain Assessment* (2nd edn) gives a comprehensive account of these measures and refers to a range of chronic conditions (Turk & Melzack, 2000). Here we will briefly describe pain diaries, visual analogue and faces pain scales.

PAIN DIARIES

Pain diaries have proven to be effective tools in assessing the peaks and troughs of pain and in determining triggers of the pain. There are some difficulties when people fail to fill them out daily, and complete them just before an appointment 'for the nurse'. Discussions with the person before the diary is recorded can provide information for the person and help them to understand the purpose of the recordings. The discussion also helps the nurse to establish the degree to which the person is committed to collecting the information. Palermo et al (2004) compared the compliance of children aged 8–16 years of age in two groups. One group (n = 30) recorded pain in a paper diary and the other (n = 30) in an electronic diary. The electronic group recorded on more days and their entries had fewer errors and omissions than the paper group. Both groups rated the diaries as acceptable and easy to use.

VISUAL ANALOGUE SCALES

Visual analogue scales require people in pain to rate pain intensity along a scale, usually with intervals of 0 to 10, with the highest score being worst pain and the lowest score being no pain. Rather than numbers, some scales have words, such as 'bearable', etc. The scales are thought to be most accurate in terms of comparing one person's pain from baseline onwards rather than as an absolute score that can be used to compare the intensity of pain of two or more people. For inter-rater comparison, Farrar et al (2001) found a two-point reduction on an 11-point numerical pain rating scale to be clinically important in a study (n = 2724) of people with chronic pain associated with diabetic neuropathy, post-herpetic neuralgia, chronic low back pain, fibromyalgia and osteoarthritis (p. 149).

FACES PAIN SCALE

The Faces Pain Scale has been used with children for many years. It involves pictures of faces with expressions that denote increasing levels of pain, from no pain to excruciating pain. In 2000 Hunter et al tested preschool and school-aged children from 3.5 to 6 years old and found that all the children understood how to use the Faces Pain Scale and that it was discriminating and valid. Hicks et al (2001) report on the revision and re-testing of this scale (FPS-R), which now has six faces. Spagrud et al (2003) note that FPS-R faces do not express emotion, which is preferable in terms of keeping children focused on pain rather than emotion, which is the case with smiley or crying faces. These authors also stress the importance of careful explanations for children before they use the scale.

MANAGEMENT OF CHRONIC PAIN

People with chronic pain and/or their families are the primary managers of chronic pain—including that caused by cancer—as the treatment for both has shifted from the hospital to the outpatient department or GP surgery to the home. Following the dominant trend in the chronic illness models of care the management of chronic pain in this section of the chapter will be structured around a theoretical framework of self-care. Self-management programs have been tested in numerous research studies. It is hard to establish the efficacy of these complex programs in the classic randomised clinical trial (Chodosh et al, 2005). However, Krein et al (2007, p. 61) reported that ‘... higher self-efficacy negated or reduced the association between chronic pain and reported difficulty exercising and taking medications’ in a survey of 543 older adults with chronic pain.

Following such models, nurses and health professionals are required to support the self-care agency of the person in pain or their family members or friends in a number of ways. Using the self-care theory of nursing described by Orem (1991), the systems of nursing—educative/supportive, partially compensatory and totally compensatory—fit well with service provision for people with chronic illness. Most people fit into the educative/supportive category but others, weighed down with years of pain, uncontrolled pain or co-morbidities, may find their ability, or that of their lay carers, to be the self-care agent compromised. In these cases health professionals will be required to step into the partially compensatory or wholly compensatory systems of care.

Education about the illness, its manifestations, diagnostic studies and the treatment regimen can assist to diminish anxiety, reduce stress and assist the person to cope with ongoing pain, self-manage the pain, enhance feelings of control and adhere to the treatment plan (Richardson 2006a, p. 1197). As always, it is important to evaluate the person’s knowledge levels about the ‘content’ of what is being taught before starting.

Good communication and a trusting relationship are fundamental to helping the person in pain to live to their fullest potential. Good communication with the multidisciplinary team and mutual respect for their specialist contributions is also essential. Developing a trusting, therapeutic relationship with the person involves believing the person’s pain reports, listening actively, displaying empathy and using effective verbal and non-verbal skills and touch.

Partners, friends and lay carers are important players in the management of chronic pain and can assist the person with chronic pain by supporting their coping strategies and not undermining their skills. This support is encouraged when the partners are included in the pain management education and they are supported to learn the principles of self-management. Close communication about the pain experience between partners is supportive (Newton-John & Williams, 2006). Negative impacts on the relationship include friction between the partners, resentment, decrease in intimacy

and ultimately erosion of the relationship, which can end in separation and divorce (Sofaer-Bennett et al, 2007a). Sofaer-Bennett et al (2007b) also found that personal friendships wane as pain interferes with visiting, social outings and movement. Holidays become a pleasure of the past, and planned activities are frequently cancelled due to pain.

Addressing the basic needs of the person is important for those who live with chronic pain. Sleeplessness is often a great difficulty, contributing to irritability and difficulty with relationships. Sleep promotion may well assist. Interventions such as teaching the individual and partner about the need for stimulus control, progressive muscle relaxation and sleep hygiene measures are the first-line management strategies. Sleep hygiene measures include establishing a sleep routine, environmental control, limiting caffeine and alcohol (and for some, fluids) during the evening, establishing the bedroom as a sleep room (not for reading, working or hobbies), physical comfort (temperature, perhaps a warm bath just prior to bedtime, planning analgesia so the effects are peaking at the time of falling asleep) and promoting relaxation. If these are ineffective, the assistance of the multidisciplinary team must be sought for such additional measures as hypnotic medication, biofeedback and cognitive-behavioural therapy (Zelman et al, 2006).

The spiritual assistance and the comfort of prayer is often not discussed with or understood by the healthcare professionals. McCaffery et al (2004) surveyed 2055 people with chronic pain conditions and found that prayer is used frequently for coping with pain, and users reported high levels of perceived helpfulness (p. 858). This indicates that spiritual comfort is effective in dealing with chronic pain and should be included in the repertoire of the healthcare professional.

TREATMENT OPTIONS

COMPLEMENTARY THERAPIES

People who suffer from chronic pain are increasingly turning to complementary and alternative therapies. The philosophical orientation of these therapists is opposite to the reductive stance taken by conventional Western medicine. They take a holistic perspective and treat, according to their particular tradition, the person rather than the causative pathology. The emphasis is on total wellbeing rather than the control or, some would say, masking, of symptoms, in this particular case pain. Of course as the sciences of complementary therapy and Western medicine advance, their boundaries overlap. One borrows technologies to identify pathologies and the other accepts the complexity of the spiritual, cultural, social, physical and psychological make-up of human beings. Indeed, in many general practices medical practitioners and complementary therapists work from the same centre. Nurse practitioners working with people with chronic pain typically work within the health service and to some extent are bound to conventional Western medicine, but some are experts in complementary therapies. Nurses working with patients with chronic pain may have skills such as therapeutic touch or naturopathy as well as their nursing degree.

ANALGESICS

There are three classes of analgesic: non-opioids (paracetamol, non-steroidal anti-inflammatories), opioids and adjuvant drugs. The World Health Organization has a well-publicised evidence-based pain ladder for the treatment of people with cancer pain. In a three-step process they suggest beginning with oral analgesic such as paracetamol or aspirin, then adding mild opioids such as codeine and eventually strong opioids such as morphine.

Administration of the drugs should be regular rather than as needed. Additional medicines may be required to calm anxiety and fear (WHO, 2007).

Control of chronic pain with analgesics is a specialist area and beyond the remit of this chapter. Nurses are required to understand the effects and side-effects of all medicines in a medication regimen and to help the recipient and carers obtain and use this information in the safe and efficient administration and storage of the medicine. Contemporary technology is moving at a fast pace and it is now possible, as illustrated in Case study 8.1, to have 'state of the art' administration technology at home and beyond to ensure consistent intravenous administration of opioids.

Adjuvant drugs are medications that are not analgesics but may be used alone or as a complement to analgesics for chronic pain. They are usually sedatives, anxiolytics or muscle relaxants. Older people taking these adjuvants, even in small doses, should be carefully monitored for their effect and side-effects.

Breakthrough pain is a transient flare of pain of moderate-to-severe intensity that is rapid in onset and relatively short-lived, experienced in addition to a controlled baseline of pain that is of no more than mild-to-moderate intensity (Taylor et al, 2007, p. 281). Taylor et al have demonstrated its negative effect on the person's quality of life and suggest the use of a rapid-acting transmucosal analgesic (oral transmucosal fentanyl citrate) to negate the effects of the pain, and return control to the individual with chronic pain.

The greatest barriers to adequate and timely pain management for people with chronic pain remain those beliefs that have been reported for decades. They are the side-effects of opioid drugs, fear of addiction and the belief that pain indicates disease progression. Family caregivers who have good pain management knowledge are less influenced by these beliefs and are better able to manage pain levels (Vallerand et al, 2007). Discussing each aspect of their pain management with the person and their significant others, and ensuring a good understanding of the basics of self-care, prepares the person to better manage their chronic pain.

OTHER INTERVENTIONS

Non-pharmaceutical interventions can bring relief from chronic pain and give people a sense of control. Relaxation therapy, cutaneous stimulation such as heat and cold, massage, guided imagery, music therapy, self-hypnosis and bio-feedback are just some examples.

Cognitive-behavioural therapy is an effective approach for assisting people to manage their pain. The primary aims of cognitive-behavioural therapy are to help patients to alter beliefs that are detrimental to their own management of the pain; monitor their thoughts, emotions and behaviours and link these to environmental events, pain, emotional distress and psychosocial difficulties; develop and maintain effective and adaptive ways of thinking, feeling and responding; and perform behaviours that assist them to cope with pain, emotional distress and psychosocial difficulties (Adams et al, 2006, p. 296). Interventions that influence the person's cognition, such as 'education, reassurance, coping strategy training, stress management, cognitive restructuring distraction, problem solving, changing pain behaviours, increasing physical activity, goal setting and pacing' are all part of cognitive-behavioural therapy (Richardson et al, 2006, p. 1197).

Reassurance assists the person to reduce their anxiety and is a fundamental aspect of nursing. People living with chronic pain often fear that they will increase the pain and cause further damage by movement and exercise; or that there is an underlying pathology that has not yet been discovered. Reassurance and education can assist the person to understand the fallacy of these beliefs and develop more realistic strategies, such as exercise and pacing to prevent further deterioration in their physical capabilities. Acceptance that chronic pain is not curable or not even explainable is difficult and the individual with chronic pain needs professional as well as personal support to come to this acceptance.

CONCLUSION

This has been a broad overview on a large topic. The care and self-management of people with chronic pain is now a recognised specialty deserving of intensive study and research. A large number of people who have recourse to health services will suffer chronic pain as a comorbidity. All health professionals should be aware that they can do much to alleviate these people's sense of isolation and despair by being aware of chronic pain as a common symptom that needs to be assessed and integrated into chronic illness management plans. Timely referral to and collaboration with specialist services will enhance the care of people with chronic pain and ensure that people with chronic pain receive the best available therapies.

REFLECTIVE QUESTIONS

- 1 How do you feel about providing health services to people who are unlikely to recover?
- 2 How do you currently acknowledge the experience and expertise of people who live with chronic pain when you meet them in your professional practice?
- 3 What areas of knowledge do you need to extend your skills in order to provide a better service to people who have chronic pain and their family supporters?

RECOMMENDED READING

- Brennan F, Carr D B, Cousins M J (2007) Pain management: A fundamental human right. *Pain Medicine* 105(1):205–221
- Butler D S, Mosely G L (2003) *Explain Pain*. Adelaide: Noigroup Publications
- Fenwick C (2006) Assessing pain across the cultural gap: Central Australian Indigenous peoples' pain assessment. *Contemporary Nurse* 22(2):218–227
- Siddall P J, Cousins M J (2004) Persistent pain as a disease entity: Implications for clinical management. *Anaesthesia & Analgesia* 99:510–520
- Turk D, Melzack R (eds) (2000) *Handbook of Pain Assessment* (2nd edn). New York: Guilford Press

REFERENCES

- Adams N, Poole H, Richardson C (2006) Psychological approaches to chronic pain management: part 1. *Journal of Clinical Nursing* 15:290–300
- Aoun S, Howe K (1998) *Rural health initiative in general practice: chronic pain management*. 4th Biennial Australian Rural and Remote Health Scientific Conference, Toowoomba, Qld: National Rural Health Alliance
- Australian Bureau of Statistics (2007) Population by age and sex Australia 2006. No 3235.0. Accessed 20 August 2007 <http://www.abs.gov.au/AUSSTATS/abs@.nsf/Latestproducts/3235.0Main%20Features32006?opendocument&tabname=Summary&prodno=3235.0&issue=2006&num=&view=>
- Blyth F, March L, Brnabic A, et al (2001) Chronic pain in Australia: a prevalence study. *Pain* 89(2–3):127–134
- Boersma K, Linton S J (2006) Psychological processes underlying the development of a chronic pain problem: a prospective study of the relationship between profiles of psychological variables in the fear-avoidance model and disability. *Clinical Journal of Pain* 22(2):160–166
- Butler D S, Mosely G L (2003) *Explain Pain*. Adelaide: Noigroup Publications
- Chodosh J, Morton S, Mojica W, et al (2005) Meta-Analysis: Chronic disease self-management programs for older adults. *Annals of Internal Medicine* 143(6):427–438

- Davidhizar R, Giger J N (2004) A review of the literature on care of clients in pain who are culturally diverse. *International Nursing Review* 51:47–55
- Dewar A (2006) Assessment and management of chronic pain in the older person living in the community. *Australian Journal of Advanced Nursing* 24(1):33–38
- Dick B D, Rashed S (2007) Disruption of attention and working memory traces in individuals with chronic pain. *Anaesthesia & Analgesia* 104:1223–1229
- Edwards R R, Goble L, Kwan A, et al (2006) Catastrophising, pain and social adjustment in scleroderma: relationships with educational level. *Clinical Journal of Pain* 22(7):639–646
- Farrar J, Young J, LaMoreaux L, et al (2001) Clinical importance of changes in chronic pain intensity measured on an 11-point numerical pain rating scale. *Pain* 94:149–158
- Fenwick C (2001) Assessing pain across the cultural gap: Central Australian Indigenous peoples' pain assessment. *Contemporary Nurse* 22(2):218–227
- Fenwick C, Stevens J (2004) Post operative pain experiences of central Australian Aboriginal women. What do we understand? *Australian Journal of Rural Health* 12(1):22–27
- Girdhari S, Smith S K (2006) Assisting older adults with orthopaedic outpatient acute pain management. *Orthopaedic Nursing* 25(3):188–195
- Hadjistavropoulos T, Herr L, Chibnall J, et al (2007) An interdisciplinary expert consensus statement on assessment of pain in older persons. *Clinical Journal of Pain* 23(1 Supplement):S1–S43
- Hamilton NA, Zautra AJ, Reich J (2007) Individual differences in emotional processing and reactivity to pain among older women with rheumatoid arthritis. *Clinical Journal of Pain* 23(2):165–172
- Hicks C L, et al (2001) The Faces Pain Scale – Revised: toward a common metric in pediatric pain measurement. *Pain* 93(2):173–183
- Hill M, Craig K D (2004) Detecting Deception in Facial Expressions of Pain: Accuracy and Training. *Clinical Journal of Pain* 20(6):415–422
- Hunter M, McDowell L, Hennessy R, Cassey J (2000) An evaluation of the Faces Pain Scale with young children. *Journal of Pain Symptom Management* 20(2):122–129
- International Association for the Study of Pain; H Merskey, N Bogduk (eds) (1994) *Classification of Chronic Pain: Descriptions of Chronic Pain Syndromes and Definitions of Pain Terms* (2nd edn). Task Force on Taxonomy. Seattle, WA: International Association for the Study of Pain Press
- Krein S, Heisler M, Piette J, et al (2007) Overcoming the influence of chronic pain on older patients' difficulty with recommended self-management activities. *The Gerontologist* 47: 61–68
- Mayer D, Torra L, Byock I, Norris K (2001) Speaking the language of pain. *American Journal of Nursing* 101(2):44–50
- McCaffery M, Beebe A (1989) *Pain: Clinical Manual for Nursing Practice*. St Louis: Elsevier
- McCaffery A M, Eisenberg D M, Legedza A T R, et al (2004) Prayer for health concerns: Results of a National Survey on Prevalence and Patterns of Use. *Archives of Internal Medicine* 164(8): 858–864
- McGrath P (2006) 'The biggest worry'...research findings on pain management for aboriginal peoples in Northern Territory, Australia. *Rural and Remote Health* 6(549):1–14
- McMurray C, Smith R (2001) *Diseases of globalization: Socioeconomic transitions and health*. London: Earthscan Publications
- Mendelson G, Mendelson D (2004) Malingered Pain in the Medicolegal Context. *Clinical Journal of Pain* 20(6):423–432
- Murphy P (2006) Interventional techniques in chronic pain management: Part I: Intrathecal analgesic chemotherapy in chronic and cancer pain. *Painwise* 5(1):15–19
- Newton-John T R, C deC Williams A (2006) Chronic pain couples: perceived marital interactions and pain behaviours. *Pain* 123:53–63
- Orem D (2001) *Nursing: Concepts of Practice*. Savannah, GA: Elsevier
- Palermo T, Valenzuela D, Stork P (2004) A randomized trial of electronic versus paper pain diaries in children: impact on compliance, accuracy, and acceptability. *Pain* 107:213–219
- Parsons S, Harding G, Breen A, et al (2007) The influence of patients' and primary care practitioners' beliefs and expectations about chronic musculoskeletal pain on the process of care: a systematic review of qualitative studies. *Clinical Journal of Pain* 23(1):91–98

- Richardson C, Adams N, Poole H (2006a) Psychological approaches to chronic pain management: part 2. *Journal of Clinical Nursing* 15:1196–1202
- Richardson J C, Ong B N, Sim J (2006b) Is chronic widespread pain biographically disruptive? *Social Science & Medicine* 63(6):1573–1585
- Roper N, Logan W, Tierney A (2000) *The Roper Logan Tierney Model of Nursing: Based on Activities of Living*. Edinburgh: Elsevier
- Smith B H, Macfarlane G J, Torrance N (2006) Epidemiology of chronic pain, from the laboratory to the bus stop: time to add understanding of biologic mechanisms to the study of risk factors in population-based research? *Pain* 127:5–10
- Sofaer-Bennett B, Holloway I, Moore A, et al (2007a) Perseverance by older people in their management of chronic pain: a qualitative study. *Pain Medicine* 8(3):271–280
- Sofaer-Bennett B, Walker J, Moore A, et al (2007b) The social consequences for older people of neuropathic pain: a qualitative study. *Pain Medicine* 8(3):263–270
- Spagrud L J, Piira T, von Baeyer C L (2003) Children's self-report of pain intensity: The Faces Pain Scale – Revised. *American Journal of Nursing* 103(12):62–64
- Statistics New Zealand – Te Tari Tatau (2004) Older New Zealanders – 65 and beyond. Wellington: Statistics New Zealand. Accessed 10 March 2008 from <http://www.stats.govt.nz/analytical-reports/older-nzrs/chap1.htm?print=Y>
- Sullivan M (2004) Exaggerated pain behaviour: by what standard? *Clinical Journal of Pain* 20(4): 433–439
- Taylor D R, Webster L R, Chun S Y, et al (2007) Impact of breakthrough pain on quality of life in patients with chronic, noncancer pain: patient perceptions and effect of treatment with oral transmucosal fentanyl citrate. *Pain Medicine* 8(3):281–288
- Turk D, Melzack R (eds) (2000) *Handbook of Pain Assessment* (2nd edn). New York: Guilford Press
- Vallerand A H, Collins-Bohler D, Templin T, Hasenau S M (2007) Knowledge of and barriers to management in caregivers of cancer patients receiving homecare. *Cancer Nursing* 30(1):31–37
- Wade J B, Hart R P (2002) Attention and the Stages of pain processing. *Pain medicine* 3(1): 30–38
- Williams L J, Jacka F N, Pasco J A, et al (2006) Depression and pain: an overview. *Acta Neuropsychiatrica* 18:79–86
- World Health Organization (2007) Analgesic Ladder. Geneva: World Health Organization. Accessed 2 September 2007 <http://www.who.int/cancer/palliative/painladder/en/>
- Zelman D C, Brandenburg N A, Gore M (2006) Sleep impairment in patients with painful diabetic peripheral neuropathy. *Clinical Journal of Pain* 22(8):681–685