Dealing with acute and chronic pain: part one — assessment

Julie Gregory

Pain is experienced by many patients in primary and secondary care and the assessment of pain is a fundamental aspect of nursing. Community nurses need to possess a strong knowledge base to inform and advise their patients, this in turn enables them to help and empower their patients to effectively control pain with minimal side-effects. This two-part series on pain provides an update on the assessment and management of acute and chronic non-malignant pain. This first part of the series examines how community nurses can recognise and categorise pain and start to draw up a plan of care for the patient. The second part in this series will deal with the management of pain.

KEYWORDS:
Pain ■ Assessment ■ Acute and chronic pain

Pain is a subjective individual experience (Strong et al, 2002), which is not just a simple response to an unpleasant sensation. It is affected by psychological and social factors, such as the site and nature of the injury, personality, age, gender, anxiety, understanding and cultural factors (Godfrey, 2005). Uncontrolled pain can have harmful physiological, psychological and emotional effects on an individual (Williams and Salerno, 2012).

ACUTE PAIN

Acute or nociceptive pain is seen as a short-term symptom or warning. It is usually localised and of limited duration, decreasing over time as healing progresses. It is accompanied by a stress response indicated by an increased heart rate and raised blood pressure and may cause sweating and pallor (Bond and Simpson, 2006).

Acute pain responds to analgesia and treatment of the underlying problem (Hawthorn and Redmond, 1998). Examples of acute pain include surgical pain, fractures, infection and myocardial infarction.

Acute pain is a physiological response to tissue damage, such as surgery, trauma and wounds, for example. The inflammatory response initiated by the injury triggers the nociceptors (pain receptors), which transmit a signal to the brain via the spinal cord where the signal is interpreted and perceived as pain (Godfrey, 2005).

The pain pathway has been studied using functional brain imaging, which has provided evidence of a number of key sites within the brain involved in the perception of pain. These studies have increased the understanding of the role of higher centres in the psychological aspects of pain appreciation and behaviour (Bond and Simpson, 2006). They provide evidence of the widely distributed nature of the nociceptive system and of a close association between areas of the nervous system that respond to pain, areas that control autonomic and motor function, and a person's emotional state (Strong et al, 2002).

CHRONIC PAIN

Chronic non-malignant pain is defined as having lasted for three months or more and persists after healing would normally be complete and beyond the point where it has value as an indicator of tissue damage (Bond and Simpson, 2006). Chronic pain does not have a predicable ending.

Chronic non-malignant pain generates variable emotions and behaviours, and how an individual adapts and copes with their ongoing pain is a major aspect of chronic pain management. Some people cope well and make every effort to lead as

THE SCIENCE — WHAT IS PAIN?

Pain manifests as an unpleasant sensation conveyed to the brain by sensory neurons and signals actual or potential damage to the body. Pain is more than simply a physical sensation — it is also a perception representing a person's subjective interpretation of discomfort. This perception provides the person with information on the location of the pain as well as its intensity. The conscious and unconscious responses to pain — including the emotional response — further defines the overall concept of pain.

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Red Flag	Chronic pain

Constant long-term pain changes the central nervous system, resulting in the individual no longer displaying the signs that accompany acute pain, such as sweating and/or a raised pulse (Hawthorn and Redmond, 1998). This can be dangerous as it means that chronic pain can go unrecognised by healthcare professionals, even though it can be having a deleterious affect on the patient.

normal a life as possible. However, at the other extreme, some individuals can become heavily dependent on others, such as family members of healthcare services (Bond and Simpson, 2006).

Chronic non-malignant pain represents a major burden for health services and the community at large, due to the significant reliance on medical services as well as through social security payments and unemployment. For the individual, unrelieved chronic pain can lead to depression, psychological dysfunction, prolonged disability and dependence on drugs (Royal College of Anaesthetists and British Pain Society, 2003).

In the UK millions of people experience chronic non-malignant pain. A study by Elliott et al (1999) in Scotland found that about half of the 3,605 people surveyed had chronic pain. This increased to two-thirds of the respondents over the age of 65 years. Back pain and angina were common reasons for chronic non-malignant pain, although the cause of pain was unknown in 4.5% of cases (Elliott et al, 1999). The majority of people with chronic non-malignant pain are treated in primary care settings, making knowledge about assessment and management crucial for community nurses. Treatment approaches for chronic non-malignant pain are different and less aggressive than those required for acute pain (McCaffery and Pasero, 1999).

It is important to assess chronic non-malignant pain in detail, identifying its effect on the individual, their activities of living, its psychological impact and the patient's understanding of the underlying problem. As well as understanding that pain may be long-term, patients also need detailed information about treatment options so that they feel empowered to control the pain.

PAIN ASSESSMENT

Good management requires that pain must be assessed and documented on a regular basis — unless the pain is monitored regularly the patient may continue to suffer unnecessarily (Williams and Solerno, 2012).

Assessment and measurement are fundamental to diagnosing the cause of any pain, selecting an appropriate analgesia, and choosing and/or modifying the appropriate therapy (Australian and New Zealand College of Anaesthetists and Faculty of Pain Management [ANZC], 2010). In other words, the management of pain develops from pain assessment, which is the first step in the decision-making process. If the initial assessment is inadequate,

pain management interventions can be ineffective (Dols et al, 1995).

The patients' report of pain is the most reliable indicator and it is essential that community nurses listen and believe the individual's version of any pain experience (Schofield and Dunham, 2003). Pain scales or tools provide a standard means of assessing pain, and are used to establish the level of pain and to help patients communicate their pain experience. They can also help to evaluate a patient's response to treatment and thus indicate if a review of pain therapy is needed (Williamson and Hoggart, 2005; Ruder, 2010).

There are a number of easy-to-use pain assessment scales available, all of which are valid and reliable. Their success depends on the patient's ability to use the scales and careful interpretation of the scores by the community nurse (Williamson and Hoggart, 2005).

Visual analogue scales (VAS), numerical rating scales (NRS) and verbal descriptor scales (VDS) are examples of verbally administered and commonly used pain scales that measure pain intensity (*Table 1*).

Table 1: Commonly used pain assessment scales

Visual analogue scale (VAS)	This consists of a 10cm line with anchor words at each end ranging from 'no pain' and 'worst pain imaginable'. A mark is made on the line by the patient with a pen or pencil, indicating the level of pain (Schofield and Dunham, 2003). Alternatively a plastic or metal slide-ruler may be used as an alternative to paper (Mohan et al, 2013). It can be written in different languages (Mohan et al, 2013) and provides an accurate measure of pain. However, it is complicated (Wood, 2004), time-consuming, and is difficult to use for people with visual impairment and dexterity problems (Williamson and Hoggart, 2005; Mohan et al; 2013), and is felt to be inappropriate for people with cognitive impairment (Wood; 2004; Bird, 2005)
Numerical rating scale (NRS)	The patient is asked to verbally rate their pain as a number (0–10), with 0 indicating 'no pain' and 10 the 'worse pain imaginable' (Wood, 2004; Mohan et al, 2013). It is quick and easy to use in patients who can communicate effectively (Ruder, 2010; Mohan et al, 2013). The scale overcomes the problems associated with the VAS, it is suitable for all ages and is sensitive to small changes in pain (Williamson and Hoggart, 2005). It is difficult to use with language problems (Mohan et al, 2013) and some patients have difficulty rating their pain as a number. Older people may find it difficult to use (Bird, 2005) and it is considered inappropriate in cognitively impaired patients (Wood, 2004; Lukas et al, 2013).
Verbal descriptor scale (VDS)	This scale asks the patient to indicate which word describes their pain. Examples of descriptors are: 'no pain', 'mild pain', 'moderate pain' and 'severe pain'. It is quick and easy to use, is valid, and fits with the WHO analgesic ladder (Wood, 2004). It is the preferred scale for use in older people (Bird, 2005), and is useful for patients with cognitive impairment (Wood, 2004; Ruder, 2010). The ratings are subject to the patient's interpretation of the words and it lacks the sensitivity of the NRS (Wood, 2004)

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Five-minute test

Answer the following questions about this article, either to test the new knowledge you have gained or to form part of your ongoing practice development portfolio.

1 – What is the definition of acute pain?

2 – Can you also outline the definition of chronic pain?

3 – What are some of the symptoms of pain?

4 – Why is assessment so important in pain management?

5 – Can you name some of the different types of pain assessment scales?

Similarly, the mnemonic PQRST, may be used to elicit details of the pain and assist in diagnosis (Williams and Salerno, 2012):

P = provokes — What causes the pain? What makes it better? What makes it worse?

Q = quality — What does the pain feel like? Describe your pain? Dull, sharp, stabbing, burning, crushing

R = radiating — Where is the pain? Is it in one place? Does it move around?

S = severity — Intensity of the pain measured using either, VAS, NRS, or VDS

T = time — When did the pain start? How long has it lasted? Is it constant?

Using these methods will give the community nurse a benchmark for the person's pain with which to measure future changes in pain severity.

Recording the results of these assessment methods will also provide an accurate picture of the patient's pain and allow the community nurse to start considering management options from a position of knowledge.

CONCLUSION

The management of pain should be a patient-centred activity, starting with comprehensive assessment of the pain. If assessment is inadequate, pain management interventions can be ineffective.

A comprehensive assessment of a patient's pain allows community nurses to provide information about the importance of pain relief, prepare patients for any side-effects of medication and include advice about the importance of non-pharmacological interventions. In this way, the community nurse can provide holistic, evidence-based care. **JCN**

The second part of this article deals with the management of pain, and will appear in the next issue of JCN.

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KEY POINTS

- Pain is a subjective individual experience, which is not just a simple response to an unpleasant sensation.

- Pain is affected by psychological and social factors, such as the site and nature of the injury, personality, age, gender, anxiety, understanding and cultural factors.

- The management of pain should be a patient-centred activity, starting with comprehensive assessment of the pain.

- A comprehensive assessment of a patient's pain allows community nurses need to provide information about the importance of pain relief.

- There are a number of easy-to-use pain assessment scales available, which are highly valid and reliable.