The importance of assessing pain in adults

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Pain is a personal experience but may be difficult to communicate. It is vital that nurses know how best to assess it to ensure the optimal treatment is given.

Core elements of a pain assessment

1. Pain can be acute or chronic in nature
2. Pain assessments are crucial to ascertain the best treatment and monitor any underlying causal condition
3. Patients may not always volunteer information about the pain they are experiencing so may need to be asked about it
4. Various pain assessment tools exist to cater for patients’ different capabilities
5. Pain severity should be documented to track efficacy of treatments and interventions and patient recovery

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PART 3 OF 3: PAIN MANAGEMENT

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Initial assessments will cover a lot of ground because they are used as part of a much wider exercise designed to help health professionals understand why patients are seeking treatment, what treatment and interventions have been tried, and their understanding of their current situation. Pain assessments after this point may focus on a smaller range of the pain experience to monitor treatment, the patient’s recovery or the course of the disease.

Up to 20% of the European population experiences chronic pain (van Hecke et al, 2013) and so it is likely that patients in the acute-pain setting may have both acute pain and chronic pain.

**Patient participation**

Patients vary in their ability to lead or participate in discussions about their pain and it is important for nurses to consider this before choosing the most appropriate assessment strategy. Self-report of pain using a guided question set is the best way to assess pain (MacIntyre and Schug, 2014). When patients cannot verbally report pain, there are a range of other options, including pain rating scales, to which the patient can point if able to do so. The Wong-Baker FACES Pain Scale has been endorsed by many groups as an effective tool used with children.

Some tools, such as the COMFORT scale (Bit.ly/COMFORTScale; Van Dijk et al, 2000), focus on behavioural signs of pain (Box 1), which may also include physiological changes. When a person with dementia is unable to participate in the assessment process, it is recommended that a tool specifically designed to assess pain in non-verbal older adults is used: a comprehensive review of 17 of these can be found on the City of Hope Pain and Palliative Care Resource Center’s website (Bit.ly/PainNOA).

Health professionals should not assume that a patient cannot participate in a pain assessment. People with dementia can often use self-report pain scales but they may need to be re-taught how to do so each time (Kaasalainen et al, 2013). Almost universally, patients change their “normal” behaviour when they are in pain, so knowing individual patients and their normal demeanour is vital.

**Common elements of the assessment**

Core information is common to all pain assessments. Mnemonics or initials can be helpful cues for remembering the contents of the essential baseline information. Two of the most popular cues are PQRSST and SOCRATES (Fig 1).

The emphasis placed on the different components of the assessment depends on the context in which it takes place. As an example, people with chronic pain can experience long-term mood changes (Eccleston et al, 2013) and so the emotional impact of pain forms a major part of the treatment plan – often more attention is paid to these emotional components in chronic pain than in acute pain.

**Onset of pain**

Pain is often associated with an injury or disease process but can also emerge slowly, usually in relation to a progressive disease or disorder, such as osteoarthritis or degenerative nerve disorders. With some kinds of chronic pain, patients may not be able to identify an event that triggered it and the lack of an identifiable and treatable pathology can be worrying to them.

Questions about onset of pain reveal what patients know or believe about what is happening to them. Their understanding can have a significant influence on their ability to cope, follow instructions and respond to treatment. Taking chest pain as an example, many people associate this with myocardial infarction and there is evidence that, even when MI is ruled out, patients still experience fear, stress and a sense of loss of strength (Jerlock et al, 2005).

**The cause of pain**

In order to select the most appropriate treatment is necessary to identify the mechanism of injury (how it happened). Some key questions include:

- Is this pain related to tissue damage? This type of pain is called nociceptive pain, physiological pain, inflammatory pain and tissue damage pain. It can be caused by direct trauma to the tissues (for example, burn, surgery, graze, sprain) or ongoing disease process (such as arthritis). It can be superficial (related to the skin and muscle), which is called somatic pain, or deep and related to the organs (for example, bowel, pancreas, heart), which is called visceral pain.

- Is this pain related to nerve damage or a disorder of the nerves or nervous system? This sort of pain is called neurogenic pain, neuropathic pain, central pain and phantom pain. It can be caused by direct trauma to the nerves due to compression, cutting or chemical insult; malfunction or disease-related damage of the nerves (such as diabetic neuropathy, alcoholic neuropathy...
The words patients use to describe their pain can often help to differentiate between pain arising from either nociceptive or neuropathic mechanisms (Box 2), although there is some crossover and other knowledge will need to be used to determine the main cause of the pain.

**Site and radiation**
The site of pain often provides information about the patient’s diagnosis and therefore informs future treatment. Pain is usually easier to locate accurately when it is acute and somatic – that is, related to some sort of superficial tissue damage. Deeper pain and chronic pain tend to be harder to pinpoint.

Pain may have a specific cause, such as osteoarthritis of the hip, but the pain from this is often felt in a number of places including the back, groin and knee (Izumi et al, 2014). Pain that arises from disease or injury to hollow organs (viscera) may also be felt in a distant cutaneous site. Fig 2 gives examples of the locations of referred pain.

In many cases, patients can explain or point to the site of pain but if that is not possible – usually because of complexity – they can draw their pain onto a body diagram (Fig 3). This involves moving the site of their pain and other sensory symptoms such as pins and needles on a black body diagram. Patients spontaneously choose to use different types of shading to denote different sensations, so these prove to be an effective communication tool.

Body diagrams can also offer an insight into the psychological impact of pain: distress and frustration are often marked with shading that is very dense, with longer lines that sometimes extend beyond the body (Fishbain et al, 2003). Again, the patient makes a spontaneous choice without guidance to use the tool in this way, providing health professionals with a valuable insight.

**Change in pain over time**
Post-operative pain is an example of an acute pain that should gradually improve over a relatively short period until the patient is pain free and able to return to, more or less, normal levels of activity. However, many patients find that their activity, sleep and mood may be disrupted by pain for weeks following surgery (Leegaard et al, 2010; Wiggins, 2009).

Althaus et al (2014) identified the gradual improvement in post-operative pain for most people, and also demonstrated that those who have poor rate of improvement in pain in the early days are more likely to go on to develop a chronic pain state (pain that does not go away). It is important, therefore, not to just monitor pain over time but also ensure both patients and nurses understand the important of pain management.

Variation in intensity of pain and interference with activities can help to differentiate between different causes of pain. Neuropathic pain – that is pain caused by a damage or dysfunction of the nerves and nervous system, such as painful diabetic neuropathy – tends to be worse at night, and also becomes progressively worse over the course of the day (Gilron et al, 2013). Arthritic pain tends to be at its worst on waking but reduces over the course of the day (Buttgereit, 2011; Cutolo et al, 2006). Post-operative pain also tends to be worse in the morning than later in the day (Bos-criol et al, 2007).

**Exacerbating and relieving factors**
This section of the assessment helps diagnose the cause of the pain and also target treatment effectively. Many pains will be exacerbated by movement: in musculoskeletal pains the exact movements that lead to an increase in pain can help specialists to understand which structures are involved and how; and this can be particularly important in common disorders like low back pain (Konstantinou et al, 2012). Chest pain can be due to a host of different causes and establishing a link to inspiration, ingestion of food, body position, exercise, or emotion and stress can be the key to differentiating between pleural, gastric and cardiac causes.

Neuropathic pain – for example, trigeminal neuralgia or post-herpetic neuralgia – do not tend to be made worse by movement but may be exacerbated significantly by an innocuous stimulus such as the skin being brushed lightly by a cotton bud or contact with something cold or hot; this is called allodynia. Patients with neuropathic pain also experience a result from, for example, diabetes or excessive alcohol intake respectively, multiple sclerosis, spinal cord damage; damage to central nervous system tissue (for example, stroke); or loss of sensory input to the spinal cord and brain (such as phantom pain, brachial plexus avulsion).

**Is this pain a mixture of both of the above?**
This sort of pain is complex and it is often difficult to differentiate between the different components. A good example would be chronic (long-term) back pain.

**Is there an absence of a pathological explanation for the pain?**
Some forms of chronic pain appear to have no obvious pathological cause, yet the pain is very real. This pain can be triggered by a painful episode after which the pain never resolved or alterations to the way in which the nervous system manages pain signals.

**Associations of pain with other symptoms**
Some types of pain are associated with specific symptoms – for example, sweating, pallor, nausea and vomiting are common in patients experiencing abdominal pain, while aura (flashing lights, blurred vision, weakness, numbness, difficulty speaking) is often associated with migraine. Noting these symptoms is therefore relevant when trying to diagnose the cause of a pain. Symptoms associated with pain should also be investigated, such as disrupted sleep, depression, anxiety and inability to work.
reduction in their threshold to respond to a potentially noxious stimulus. As an example, imagine someone pressing the end of an unfolded paper clip – a blunt point – onto the skin; the pressure needed to evoke pain will be less in the area of neuropathic pain than it would be in areas of normal skin; this is called hyperalgesia. These concepts are outlined clearly by Jensen and Finnerup (2014).

Relieving factors, also called palliating factors, often give helpful insight into the patient’s actual or potential response to therapy. Musculoskeletal pain usually responds well to rest; for acute soft-tissue damage, the mnemonic RICE (rest, ice, compression and elevation).

In chronic pain, RICE is inappropriate because disuse exacerbates pain as muscles weaken. The patient becomes less supple and flexible, and has a heightened pain response to attempts to build up activity levels again.

Acute pain related to tissue damage tends to respond well to pain-relieving medication such as paracetamol, opioids and non-steroidal anti-inflammatory drugs (NSAIDs) or agents. Chronic pain does not tend to respond as well to these drugs, although they may bring partial relief. Patients may also be taking adjuvant pain-relieving drugs, such as antidepressants and anticonvulsants, which are more usually associated with chronic pain and, in particular, neuropathic pain. A number of different issues need to be covered in a medication assessment:

» What is prescribed (drug, dose, timing, route)?
» How is the patient taking the drug (how often, how much)?
» How long has the drug been used by the patient? This will help to determine potential high-risk issues such as the risk of thrombosis in NSAID use;
» How satisfied is the patient with the drugs and how are they being taken?
» How much pain relief is the patient getting?
» What side-effects is the patient experiencing?
» What management strategies are in place to manage side-effects?

It is useful to note that pain reduction only becomes clinically meaningful to a patient when it is in the region of 30% or more (Mease et al, 2011; Lee et al, 2003).

When patients experience side-effects, for example nausea and vomiting, as a result of taking opioids, they may feel that pain is preferable to the side-effects – this will prevent them from using the drug in the most helpful way. Side-effects, including constipation, cognitive blunting and sedation hangover effects, are important predictors of adherence to acute and chronic pain management strategies.

This section of the assessment (determining the exacerbating and relieving factors) should also be used to identify patients’ use of alternative and complementary therapy as well as therapies and medications that have already been tried or are currently being used. For each of these therapies, it is important to elicit from the patient how they have been used and how much benefit – if any at all – the patient has experienced.

There are many patient forums that provide examples of how patients can feel judged during this part of the assessment, sensing that the health professionals are making negative judgements of their efforts to find strategies and therapies to help them cope with the pain. It is important to use a systematic approach to determine whether each strategy was used in a helpful way, and whether it came at a financial or physical cost that the patient cannot bear indefinitely.

**Severity of pain**

Severity or intensity of pain is the aspect commonly used to track recovery, response to treatment or illness trajectory. Simple numeric scales are effective and, by repeating measurements over time, it is possible to develop a graphical trend showing how pain varies with time and with activities. With acute pain this should be readily accessible on the patient’s chart, so analgesia and recovery can be evaluated; patients with chronic pain could be asked to keep a diary.

Common tools include the numerical rating scale (NRS), which involves asking the patients to rate their pain intensity on a scale of 0-10, in which 0 means no pain at all and 10 is the worst pain they have ever experienced or the worst imaginable pain. Although the anchor of “worst pain imaginable” is often used at the end of the scale, patients find this difficult to understand and prefer the anchor “worst pain ever experienced” (Yokobe et al, 2014).

The NRS works well for adults (Williamson and Hoggart, 2005) and has sufficient sensitivity to enable patients to communicate changes in their pain over time. An alternative is the visual analogue scale (VAS), which is usually presented to the patient in the form of a 100mm line drawn on paper, or a plastic ruler with a slider; the anchors are the same as the 0-10 NRS. The verbal rating scale (VRS) consists of a list of 4-6 words denoting increasing pain intensity:

» No pain;
» Mild pain;
» Moderate pain;
» Severe pain.

In terms of ease of use or adherence by adults, the NRS tends to be more effective than the VAS and the VRS (Hjermstad et al, 2011) and is the one chosen in many clinical settings.

**Conclusion**

The most important factor in pain assessment is the self-report of the patient. However, some patients may be reluctant to
triggers the assessment so it is vital for nurses to prompt discussion of pain with patients. Pain assessment can be complicated, especially in the initial stages and when there is no obvious acute cause; however, even a simple assessment of pain site and severity can provide enough information for treatment to be started.

References


