Painful times

Linda Monaci provides an overview of cognitive symptoms of chronic pain

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Pain is commonly defined as chronic when it exists for longer than the expected timeframe for healing. The most common definitions consider pain to be chronic when it continues beyond between periods of three or six months (Ashburn & Staats, 1999; Turk & Okifuji, 2001). It can occur in the presence of actual or potential identifiable tissue damage, injury or pathology. A publication that summarised two systematic reviews and 13 primary studies found that when the classification of the International Association for the Study of Pain was used, ie chronic pain as "pain that persists beyond the point at which healing would be expected to be complete or that occurs in disease processes where healing would not be expected to take place", the mean prevalence of chronic pain in adults seen in primary care settings was 35.5%, ranging between 10.5-55.2% (Ospina & Hartstall, 2002). Chronic pain has significant costs, for instance in the UK the direct cost associated with chronic back pain was estimated to be in excess of £1,632m in 1998 (*Effective Health Care* bulletin, 2000).

Cognitive complaints

People with chronic pain also invariably complain of cognitive difficulties. Cognitive complaints are the most frequently reported complaints for individuals with chronic head/neck pain (Nicholson & Martelli, 2004) and they also present in other types of chronic pain, in particular in presence of litigation or other secondary gains. In fact, memory complaints are more frequent in chronic pain patients than in those with major head injury or other physical pathology of the brain (Green et al., 2005). There is some evidence that chronic pain sufferers do experience cognitive deficits to the extent that they impact on their daily life activities. People with chronic pain appear especially vulnerable to difficulty with tasks involving complex-attention-demanding tasks (Eccleston, 1994). However, the relationship between cognitive functioning and pain is complex, as Kewman et al, (1991) found cognitive performance was as strongly influenced by educational level as pain intensity. Iverson and McCracken (1997) found that 42% of their chronic pain sample endorsed at least one cognitive symptom and based on symptoms they reported they met the criteria for post-concussion syndrome. Hart et al. (2001) carried out a review article that examined the effect of pain on neuropsychological functioning. They found that only one study (Schmand et al, 1998) out of 23 studies had included a measure of effort. Schmand et al (1998) examined patients who had a whiplash injury, but no brain injury. They found that 40% of the 108 patients assessed failed forced-choice effort tests. Those who passed effort tests showed lower cognitive performance than a normal control group, but their performance was significantly above the patients who had failed effort tests.

Chronic pain populations

The vast majority of studies on symptom validity have been conducted in acquired brain injury populations, but in the last 10 years, research has increasingly focused on chronic pain populations. There are only a few studies including tests of symptom validity in patients with chronic pain who have not sustained a brain injury, although the use of effort measures is recommended with pain patients (Martelli et al, 2004). It is possible that pain and medications impacts on sleep and mood, contributing to fatigue and cognitive inefficiencies. Etherton et al (2006) carried out a study including chronic pain patients seen in clinical settings. They used forced-choice tests of effort and cognitive tests contributing to a working memory index on the Wechsler Adult Intelligence Scale-3 (WAIS-III). They found that when taking effort into account, some patients experienced mild attentional difficulties, but those scores in the more severe range (in absence of organic brain dysfunction) were likely to be the result of exaggeration.

Malingering statistics

Northern American studies have found that as many as 25-40% of chronic pain patients claiming disability benefits due to chronic pain could be malingering, based on their performance on forced-choice tests of symptom validity (Gervais et al, 1999, Gervais et al, 2001, van der Werf et al, 2000). To-date, no British study has identified base rates for malingering or symptom magnification in chronic pain patients. However, symptom validity can be a sensitive issue for chronic pain patients, who may often feel that their complaints are not believed. People with chronic pain often complain of cognitive problems (Iverson & McCraken, 1997) and in Northern America the assessment of cognitive functions is often part of a comprehensive evaluation in this client group. A multitude of factors complicate such assessments, such as pain, depression, fatigue and medication. Furthermore, some patients may tend to exaggerate their complaints as they are involved in litigation or seeking incapacity benefits.

Rehabilitation

In rehabilitation cases a clinical neuropsychologist can ensure that a formulation of the client's difficulties is combined with valid data from cognitive testing to inform a patient's treatment. In medico-legal assessments a clinical neuropsychologist can assess and comment on cognitive difficulties (and their likely cause), as well as their prognosis and treatment, ensuring that any response bias or exaggeration is taken into account. **NLJ**

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