Back Pain – an integrated approach in primary care

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Abstract
Back pain is common, and although many cases remit quickly, a significant number also continue a relapsing course over many months and years. Psychosocial factors have a significant influence on the condition. The evidence from clinical trials of the effectiveness of various therapies is available in summarised form in several resources, though is often inconclusive. There is good evidence that acute back pain should be managed by staying active and using non-steroidal anti-inflammatory and analgesic drugs, adding cognitive behaviour therapy for subacute pain. For chronic back pain, exercise, pain management programmes, non-steroidal anti-inflammatory and analgesic drugs, and trigger point and ligament injections are also recommended. There appears to be increasing evidence in favour of the use of acupuncture. Acupuncture appears to be useful to treat back pain, but patients should probably be advised to take advantage of any pain relief obtained to maintain or increase their activity. Acupuncturists must be aware of the psychosocial dimensions of back pain, as well as the physical ones, and should be careful to educate their patients about the condition and not make them become dependent on acupuncture to treat every acute episode.

Keywords
Low back pain, acupuncture, evidence based practice.

Introduction
Back pain is a common symptom in general practice, so how do busy GPs obtain information about best practice, what does the evidence suggest is the best approach to treatment, and how does acupuncture fit into the therapeutic picture?

Epidemiological studies show that about 20% of adults will complain of low back pain on the day of asking (point prevalence). As many as 70% of adults will have had low back pain during their lifetime. However, only 25% of those with back pain will consult their GP, amounting to 6 to 9% of consultations. Psychosocial factors are more important than the degree of pain in influencing whether a patient consults a health professional.

Of those who consult for an episode of low back pain, 75% will return to work in two weeks and 90% will stop consulting within three months. However, 75% will still have some pain or disability one year later and 30% will follow a remitting and relapsing course for more than three years. Back pain therefore is common and tends to follow a more chronic pattern of waxing and waning over many months and years.

Predictors of poor outcome include leg pain in addition to back pain, a greater degree of pain at
initial presentation, patient anxiety and a tendency to catastrophise symptoms, together with psychosocial factors such as compensation issues, work dissatisfaction or marital problems (Dunn K, presentation at Royal Society of Medicine Symposium: A Back Pain Service: whose responsibility? Leeds; May 2004). The location of back pain within its psychosocial context has been expressed in graphic form by Waddell (Figure 1).

Locating the evidence
The majority of GPs have neither the time to critically review original research papers nor the skills to perform meaningful systematic reviews. Luckily there are useful publications to help, including general resources such as Clinical Evidence, which is updated six monthly, and the Cochrane Library, as well as resources specific to back pain such as Acute Back Pain published by the RCGP. The Back Pain Revolution, which has recently been revised, and clinical reviews.

Clinical Evidence in particular provides a useful source of evidence for effective health care for a large number of clinical problems and is regularly updated. However, even these respected sources cannot always come to a definite conclusion. For example, out of 1851 treatments reviewed in Clinical Evidence issue 10, the authors judged no less than 47% to be of unknown effectiveness, and they were honest enough to confess a degree of subjective judgement when categorising treatments. Nevertheless it is useful to know which treatments are generally thought to be beneficial and which are regarded as ineffective or harmful to our patients.

Management of acute back pain
For the treatment of acute back pain, there is now agreement that there is a substantial evidence base, for:

- Advice to stay active
- Prescription of NSAIDs and muscle relaxants
- Cognitive behavioural therapy, at least for back pain lasting more than six weeks.

Therapies judged to be of unknown effectiveness are manipulation, back schools, TENS and acupuncture. There are fewer studies of acupuncture for acute back pain than for chronic back pain, but there seems to be increasing evidence in its favour. For example, one Norwegian study randomised 60 patients with low back pain who presented in general practice to either acupuncture or naproxen 500mg twice daily. There was little difference between the groups in pain relief, but both side-effects and use of analgesics were significantly lower in the acupuncture group, who also had fewer new episodes of back pain in the subsequent 12 months.

Management of chronic back pain
For the treatment of chronic back pain, there is agreement, on the role of:

- Exercise
- Pain management programmes which use multidisciplinary teams to address psychological issues as well as to teach concepts such as pacing of activities and sleep hygiene.

There is some evidence for:

- Prescription of analgesics and/or NSAIDs
- Trigger point and ligament injections.

Therapies of unknown effectiveness include manipulation and acupuncture.

In summary, the thrust of evidence for treatment for both acute and chronic back pain is to keep the patient active by the use of analgesia, and to provide explanation and encouragement within the individual’s social context. Since many patients have a remitting and relapsing condition over many months and years, it is not always easy to distinguish acute and chronic back pain in the consulting room. It is therefore useful that the broad thrust of therapy is the same for both conditions. A further benefit is that with increased understanding of the condition, the patient can be taught to deal with acute exacerbations themselves. Maintaining or increasing activity is the goal and therefore treatment needs to be aimed towards this goal.

Preliminary findings in a recent large study of acute back pain, which compared manipulation, usual GP care and an exercise programme using cognitive behavioural therapy principles, seem to show that a combination of manipulation and exercise is best, and better than manipulation alone or exercise alone. Those who benefited most from exercise were those patients who catastrophised their symptoms. These results tend to confirm the notion that therapy to reduce symptoms,
One rare case report of a patient with spinal metastases, who suffered cord compression after acupuncture treatment induced relaxation of the spinal muscles that were splinting her unstable spine, should make us cautious. However, the clinical experience of acupuncture by many medical acupuncturists in terminal care indicates that the therapy can be useful and safe.

The role of acupuncture

Despite both acupuncture and manipulation being deemed of unknown effectiveness because of a lack of good, positive, trials they are both regularly used to treat back pain. At least one meta-analysis comparing acupuncture with other modalities of treatment concluded that acupuncture is superior to various control interventions, although there is insufficient evidence to state whether it is superior to placebo.

How does acupuncture fit into the broad picture of back pain and its treatment? If we systematically consider Waddell's diagram (Figure 1), how can acupuncture influence the various levels?

Clearly acupuncture cannot influence the social environment. There is a danger that acupuncture may adversely affect illness behaviour by encouraging the patient to believe that the only answer to back pain is to return to the doctor for every new episode. Acupuncture may have a role in reducing suffering or distress, but only if pain and the patient's beliefs are addressed.

Therefore the fundamental role of acupuncture would seem to be to reduce pain. Acupuncture can be very useful in the treatment of back pain so long as the patient is given an explanation of their condition and takes advantage of the analgesia that acupuncture may give, to maintain or increase their activity.

To whom could acupuncture be given? All health professionals dealing with acute back pain will be familiar with the concept of triage into mechanical, nerve root irritation and red flag groups. Acupuncture may certainly be given to those with mechanical and nerve root pain. It can be particularly useful for patients who cannot tolerate analgesics or NSAIDs or for whom medication seems ineffective. Patients taking warfarin may be given acupuncture with common sense precautions. Those who are triaged into the red flag category, but who do not require immediate hospital admission, may reasonably be given acupuncture for analgesia while they await appropriate investigation or hospital appointment.

The management of chronic low back pain is more difficult. Pain management programmes were started following the work of Fordyce in the USA with chronic pain patients. A multidisciplinary approach combining elements such as supervised, paced activity, cognitive behavioural therapy and optimisation of medication in a coordinated programme give far better results than any individual treatment given alone. It follows that acupuncture given as a sole treatment for chronic back pain without addressing physical, medical and psychosocial issues at the same time is likely to be of more limited value. However, it could perform a useful analgesic function within such a programme.

The timing of acupuncture treatment in primary care is open to debate. Because of the pressure on appointments, a common approach for acute back pain is to offer acupuncture two weeks after the initial presentation, if medication has not helped. Since at two weeks 75% of patients feel well enough to return to work, this strategy may well limit the number of patients needing treatment with acupuncture to manageable proportions. The type of acupuncture, i.e. whether superficial or deep, brief or long, and manual or electrical stimulation is unclear and will be influenced by many factors such as the practitioner’s training and experience, the patient’s tolerance of treatment and the availability of appointments. In practice, patients with hyperalgesia or allodynia in areas of the back may well tolerate needling of superficial or distal points better than needling these very sensitive areas directly. As the areas become less sensitive then deeper local needling may be tolerated and beneficial.

Some practitioners use manipulation in conjunction with acupuncture. Many use acupuncture to reduce muscle hypertonus in order to proceed to articulation or manipulation of the spine. Others use acupuncture after manipulation.
as a means to reduce post-manipulation soreness. There are no good studies to guide us in deciding which approach is best. In practice acupuncture can be very useful to reduce symptoms in a very irritable acute back when the patient is in too much pain to tolerate manual therapy. Manual therapy can follow when the irritability is reduced. It is of interest that some patients will respond equally well to either manipulation or acupuncture. For example, a patient of mine with recurrent thoracic pain will describe a feeling of release, relaxation and local warmth whether I manipulate the area or give local acupuncture. Equally, some patients can suffer similar symptoms of feeling faint or nausea after an ‘overdose’ of either acupuncture or manipulation. This makes one speculate that both forms of treatment may influence the nervous system in similar ways, some patients responding better to one or other therapy on an individual basis.

In summary, when treating back pain it is vital to be aware of the psychosocial dimensions, as well as the physical ones. Acupuncture alone is not the answer for back pain, but can be a very useful tool in the overall approach to helping our patients.

Reference list

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