Low back pain is a major cause of disability and a financial burden on healthcare. A training programme was developed to treat it with a cognitive behavioural approach.

Using a CBT approach to manage low back pain

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In this article...
- Details of the Back Skills Training (BeST) programme
- Evidence supporting effectiveness for outcomes and cost
- How nurses can access the programme

Low back pain (LBP) is the leading cause of disability in developed countries and the second largest cause of disability globally (Hoy et al, 2014). It affects people’s ability to carry out everyday activities and to work, and is financially very costly to the individual and society as a whole (Maniadakis and Gray, 2000) – as an example, persistent LBP costs the UK £2.8bn per year in direct healthcare costs alone (Hong et al, 2013).

People often find their LBP will come and go throughout their lifetime, leaving them with the challenge of managing recurring periods of pain and, because of this, LBP is one of the greatest challenges facing public health (Balagué et al, 2012).

The management of LBP is not straightforward. Past approaches to treating it, such as hands-on therapy, often only provide short-term benefit to patients (Rubinstein et al, 2010). Due to the condition’s recurring nature and our better knowledge of pain science, LBP management has changed considerably over the past decade. We now know the relationship between perceived pain and actual tissue damage is poorly correlated – for example, we can experience a lot of pain from a small papercut or headache when tissue damage is minimal; in contrast, there are many stories of soldiers with a severe injury who reported little or no pain at the time (Butler et al, 2003). Additionally, studies have shown a poor correlation between tissue damage seen on magnetic resonance imaging scans, such as disc prolapses, and reported LBP (Brinjikji et al, 2015). This tells us that the persistent nature of LBP is a result of many complex factors, such as how distressed we are, the outlook we have on our future (that is, believing the pain will persist), or how fearful we are of pain (Costa et al, 2009; Butler et al, 2003).

The evidence now tells us that to get the best result for patients – that is, to reduce disability in the long term – LBP needs to be managed with a biopsychosocial approach, which combines psychological and physical treatment strategies (Richmond et al, 2015; Koes et al, 2010). However, few health professionals receive training in how to deliver this type of treatment to patients, leaving provision of it scarce and urgently needed (Society of British Neurological Surgeons, 2013).

The BeST programme
The Back Skills Training (BeST) programme is an evidence-based treatment for LBP that has persisted for more than six weeks. It combines psychological strategies (by using a cognitive behavioural approach) with exercise. It can be delivered by health professionals from a range of specialties, from nursing to occupational health, can have a positive impact on patients with the condition, easing their disability and consequently also, the financial burden on healthcare institutions and systems. This article describes the programme and outlines how NHS nurses can train to use the programme no matter where they are based.
backgrounds including nursing, physiotherapy, occupational therapy and psychology – evidence has shown that nurses can successfully deliver it.

Patients in the BeST programme have one individual session lasting 60 minutes, followed by six weekly group sessions of 90 minutes. We advise no more than 10 per group; the mean number was eight in the trial. The programme is structured, with each session including specific guidance on how to deliver the topic to the patients; a suggested narrative to follow is provided. The BeST programme provides patient education and promotes a range of skills to break the LBP cycle. Patient education includes understanding pain, the benefits of exercise, effects of inactivity and cycles of behaviour in which we can become stuck, such as avoiding certain activities – like bending down to lift an object – due to fear. Skills taught focus on self-management to build patients’ confidence in their ability to manage their LBP. They include:

- Setting goals;
- Working out their baseline for activities;
- Using pacing;
- Increasing activity gradually using graded activity;
- Problem solving and breaking down tasks/activities;
- Using relaxation.

Fig 1 illustrates the theory behind how LBP can become an ongoing problem and how the BeST programme tackles each stage of the cycle (Hansen et al, 2010). It shows that ongoing LBP often leads to changes in activity, which result in physical changes such as muscle tightness, which then perpetuate the LBP cycle. It also shows how thoughts and feelings about LBP interact with all aspects of the ongoing cycle.

The evidence
The BeST programme has been evaluated in a large multi-centre randomised controlled trial with over 700 patients who had troublesome LBP for six weeks or more. Patients were drawn from 56 general practices across a range of locations in England. All received a 15-minute advice session and were given a copy of The Back Book (Roland et al, 2002). This is an A5 booklet that provides evidence-based advice on overcoming back pain through a mixture of activities (exercises) and positive thinking. Participants were then randomised to receive no further treatment (controls) or to receive the BeST programme; those in the control group were free to seek additional care without any restrictions. A range of health professionals (nurses, physiotherapists, occupational therapists and psychologists) attended a two-day training course on how to deliver the BeST programme.

All participants completed baseline measures to assess their:

- Pain: modified Von Korff (MVK) pain scale;
- Disability: Roland Morris Disability Questionnaire (RMDQ), MVK disability scale.

The questionnaires were repeated at three, six and 12-month follow-ups. At
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12 months, 85% of participants gave follow-up data, showing a good response rate. We sent the same questionnaires to participants at a further follow-up time point (at an average time of 34 months) to get longer-term data, and had a response from 56% of patients.

The results of the trial showed that participants on the BeST programme had statistically significantly greater improvements in pain and disability at 12 months than controls (Figs 2 and 3). This improvement was sustained in the longer term (average 34 months’ follow-up).

The mean (average) change at 12 months was 2.4 points in the RMDQ and over 13 percentage points in the MVK scale. Importantly, participants in the BeST programme were statistically significantly more likely to achieve a 30% improvement in their RMDQ questionnaire than controls, which is thought to be clinically meaningful to patients (RMDQ risk ratio 1.4, 95% confidence interval 1.1 to 1.8) – this means the participants in the BeST programme were 1.4 times more likely to achieve this meaningful change than the control group.

Cost analysis showed the BeST programme is the most cost-effective treatment available to date to for the treatment of ongoing LBP (Lamb et al, 2010). This study’s results fit with wider evidence, which shows that, when used in addition to or compared with any other guideline-based treatment, a cognitive behavioural approach provides a significantly better outcome on pain and disability in the long term (Richmond et al, 2015).

A chance to upskill

We have adapted the face-to-face training provided to health professionals in the randomised trial described and developed a comprehensive online training programme, iBest, which is provided by the University of Oxford. This takes around 10 hours to complete and provides full access to all of the BeST programme materials. iBest is free for NHS staff, and can be used on desktop, laptop or tablet devices.

Evaluating the programme

A formal well-conducted service evaluation provides a credible source of data for quality improvement, and an opportunity to capture patient voices about health outcomes and satisfaction levels in a meaningful way. The data captured from a service evaluation can be used to improve the overall treatment experience for nurses and patients.

The University of Oxford will support any NHS trust that delivers the BeST programme in clinical practice to conduct a good-quality service evaluation. The university will provide all printed materials (questionnaires, information sheets etc), and will input, store and analyse all data, and then feed this back to each trust. It will post out questionnaires at three and 12 months after treatment to get long-term data for the service evaluation. This will give hands-on experience in research that can reduce the evidence-practice gap.

Implications

The BeST programme was more than twice as effective as usual care (best-practice advice to remain active) for patients with LBP in the short and long term, and there is extensive evidence to support its use. It can be delivered by nurses and requires only minimal resources.

The detailed session plans show nurses how to use a cognitive behavioural approach for treating LBP and provide a standardised way of delivering this approach in clinical practice. Online training is available to NHS staff free of charge (www.backskillstraining.co.uk), along with all the narrative and session plans and constitutes 10 hours’ continuing professional development.

Nurses are in an ideal position to take up this training and adopt the BeST programme, expanding their skills in the management of ongoing LBP and providing this urgently needed service.


References


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