



Mindfulness and cognitive behavioural therapy: chronic low back pain

Intervention

Mindfulness-based stress reduction (MBSR) and cognitive behavioural therapy (CBT).

Indication

Low back pain is a leading cause of disability.

Adults with chronic low back pain (LBP), with the aim of reducing pain and disability.

Compared with usual care for LBP, both MBSR and CBT have produced small but clinically meaningful improvements in patients with back pain and functional limitations.

When compared with each other, there is little difference between the effects of MBSR and CBT, although effects of MBSR may persist longer (present at follow-up at week 52).

Precautions

Patients with spinal stenosis, or compensation or litigation issues.

Adverse effects

No serious adverse events were associated with MBSR or CBT.

Availability

Most (6 of 8) MBSR instructors were trained at the Center for Mindfulness at the University of Massachusetts Medical School. The Center website allows a worldwide search for a certified MBSR teacher <http://w3.umassmed.edu/CFMInstructorSearch/#/index/search>. There are few listed in Australia.

CBT instructors were PhD-level psychologists experienced in group and individual CBT for chronic pain.

To find a similarly experienced psychologist, go to the Australian Psychological Society Find a psychologist website <https://www.psychology.org.au/FindaPsychologist/> and select 'Pain management' in the 'General health' section in the 'All issues' section. There is a further option to select 'Mindfulness-based cognitive therapy' in the 'Therapeutic approaches' section under 'Refine results'.

Ideally, GPs should be familiar with the areas of expertise of psychologists in their local network to ensure an appropriate referral.

GPs can provide the appropriate psychoeducation about chronic pain, even if they do not use all of the CBT or MBSR techniques recommended for management of chronic LBP.



Description

Both therapies were delivered in group format for 2 hours per week over an 8-week period.

In the comparison trial, the MBSR group were offered an optional 6-hour retreat. In another mind–body program, the 8-week group MBSR program was followed by six monthly sessions.

Participants in both types of therapy were also given workbooks, audio CDs and instructions for home practice (eg meditation, body scan, yoga in MBSR, relaxation, and imagery in CBT).

Between sessions, participants were asked to read chapters of Turk DW and Winter F, *The pain survival guide: How to reclaim your life* (see Consumer resources).

MBSR

The MBSR program does not focus specifically on any condition (such as pain).

The trial program was adapted from Blacker M, Meleo-Meyer F, Kabat-Zinn J, Santorelli SF. *Stress reduction clinic mindfulness-based stress reduction (MBSR) curriculum guide* (2009) which is modelled on the original MBSR program (Kabat-Zinn J. *Full catastrophe living: Using the wisdom of your body and mind to face stress, pain, and illness*, 2005). (See References)

Each session included didactic content and mindfulness practice (body scan, yoga, and meditation – attention to thoughts emotions, and sensations in the present moment without trying to change them, sitting meditation with awareness of breathing, and walking meditation).

CBT

The CBT intervention included techniques most commonly applied and studied for chronic LBP.

The program included:

- › psychoeducation about chronic pain, the relationships between thoughts and emotional and physical reactions, sleep hygiene, relapse prevention, and maintenance of gains
- › instruction and practice in changing dysfunctional thoughts, setting and working toward behavioural goals, relaxation skills (abdominal breathing, progressive muscle relaxation, and guided imagery), activity pacing, and pain-coping strategies.

Tips and challenges

The main challenge is finding providers with appropriate skills to deliver these interventions.

There may be some benefit in reading the book included in both interventions: Turk DC, Winter F. *The pain survival guide: How to reclaim your life* (see Consumer Resources). This is available in paperback and digital versions for around \$20.

Grading

NHMRC level I evidence.



Training

Pain Australia lists a range of online education and training options.
<http://www.painaustralia.org.au/healthcare-professionals/education.html>

References

Cherkin DC, Sherman KJ, Balderson BH, et al. Effect of mindfulness-based stress reduction vs cognitive behavioral therapy or usual care on back pain and functional limitations in adults with chronic low back pain: A randomized clinical trial <http://jamanetwork.com/journals/jama/fullarticle/2504811>. JAMA 2016;315(12):1240–9. doi:10.1001/jama.2016.2323.

Morone NE, Greco CM, Moore CG, et al. A mind-body program for older adults with chronic low back pain: A randomized clinical trial <https://www.ncbi.nlm.nih.gov/pubmed/26903081>. JAMA Intern Med 2016; 176(3):329–37. PMID: 26903081.

Chou R, Deyo R, Friedly J, et al. Nonpharmacologic therapies for low back pain: A systematic review for an American College of Physicians Clinical Practice Guideline <https://www.ncbi.nlm.nih.gov/pubmed/28192793>. Ann Intern Med 2017. doi: 10.7326/M16-2459. [Epub ahead of print]

Blacker M, Meleo-Meyer F, Kabat-Zinn J, Santorelli SF. Stress reduction clinic mindfulness-based stress reduction (MBSR) curriculum guide <https://www.umassmed.edu/globalassets/center-for-mindfulness/documents/mbsr-curriculum-guide-2017.pdf>. Worcester, MA: Center for Mindfulness in Medicine, Health Care, and Society, Division of Preventive and Behavioral Medicine, Department of Medicine, University of Massachusetts Medical School, 2017.

Kabat-Zinn J. *Full catastrophe living: Using the wisdom of your body and mind to face stress, pain, and illness*. New York: Random House, 2005.

Consumer resources

Pain Australia <http://www.painaustralia.org.au/> provides a range of resources to patients including a video about pain and multiple factsheets.

Australian Pain Management Association <https://www.painmanagement.org.au/> offers numerous resources including educational material, pain support groups and books to buy.

The Center for Mindfulness <http://www.umassmed.edu/cfm/mindfulness-based-programs/mbsr-courses/find-an-mbsr-program/> offers an 8-week online MBSR program, mindfulness tools at locations around the world and a self-guided video.

Turk DW, Winter F. The pain survival guide: How to reclaim your life <http://www.apa.org/pubs/books/4441007.aspx>. Washington DC: American Psychological Association, 2006.