

Back Pain Education

Introduction

Patient education, reassurance and self-care advice is the first-line care for patients with back and musculoskeletal pain and is recommended by clinical guidelines [1, 2]. Educational interventions for back pain may take many forms and can comprise of information about the condition and its management, reassurance, and advice to stay active. Due to the wide variety and options regarding patient education, Engers et al [3] defined patient education as the process of providing information to the patient using pre-planned and structured techniques. Additionally, Bellamy [4] emphasises that patient education aims to facilitate behaviour change and therefore patient education is “a process of enabling individuals to make informed decisions about their personal health-related behaviour”.

Back pain, comprising of spinal pain in the cervical, thoracic, lumbar and/or sacral regions, can be a recurrent condition and it has a variable course. While many episodes of low back pain (LBP) improve substantially within six weeks and 33% of patients recover in the first three months, 65% still report some pain at 12 months [5-7]. Furthermore, up to 33% of people will have a recurrence within a year of recovering from a previous episode [5, 8]. It is therefore important that persons presenting with LBP are informed about the clinical course of the condition.

The following are **top tips** for LBP education:

- Reassure persons about the non-life-threatening but recurrent nature of LBP.
- Encourage persons to avoid prolonged rest, stay active and resume activities despite pain, as soon as possible.
- Assess and address misconceptions about LBP.
- Explain why imaging may not be needed.
- Inform persons about evidence-based options for back pain management [1, 9, 10].

Table 1 summarises the key education messages for back pain as used in mass media educational campaigns and educational interventions. Media campaigns are used to deliver health messages with the aim to influence population attitudes, beliefs, and health-risk behaviours [11]. The outcomes regarding back pain media campaigns were mixed, and include positively influencing back health beliefs, reduction in sick leave and health care utilisation and user satisfaction [12].

Table 1: Key education messages for back pain

Topics for patient education [1, 13-19]	Media campaign messages about back pain [11, 12, 20-23]
1. Stay active. 2. Return to normal/usual activities.	1. Stay active/continue exercising. 2. Continue with usual activities.

<ol style="list-style-type: none"> 3. Education about the nature of the disorder and prognosis. 4. Reassurance and information and about the course of recovery. 5. Reassurance that the condition is not a serious disease. 6. Reassurance that symptoms will improve. 7. Patient education about coping strategies. 8. Patient education about self-management/selfcare strategies. 9. Patient education about pain and its mechanisms. 10. Education about body mechanics and ergonomics. 	<ol style="list-style-type: none"> 3. Continue and/or returning to work. 4. Do not rest for prolonged periods. 5. The prognosis is usually good. 6. Back pain is rarely caused by a dangerous illness. 7. X-rays may not be able to reveal the cause of back pain. 8. Surgery may not be the answer/ Only a few people with back pain need surgery. 9. Try simple pain relief. 10. Obtain advice. 11. There is a lot you can do to help yourself. 12. Positive attitudes towards back pain are important.
--	---

Misconceptions about back pain

There are widespread misconceptions about the causes and prognosis of back pain [24-27] such as:

- the necessity of imaging to diagnose cause of back pain and direct a treatment plan,
- pain being an accurate indicator of tissue damage,
- that structural displacements cause back pain (e.g. slipped discs),
- that loading is bad for the lumbar spine,
- that activities should be avoided when in pain,
- that the spine is vulnerable, and
- that the spine should be protected.

Clinicians are therefore encouraged to explore patients' concerns, fears, and beliefs about back pain. In this way, the clinician will be able to address any myths about back pain which the patient may hold. Listening to the patient's concerns, goals and expectations about management and outcomes, may assist in tailoring back pain education and assist collaborative decision making [28-30].

Box 1 elaborates on messages to dispel common myths about back pain.

Box 1: Dispelling common myths about back pain [25]

<ol style="list-style-type: none"> 1. Persistent back pain can be scary, but it is rarely dangerous. 2. Getting older is not a cause of back pain. 3. Persistent back pain is rarely associated with serious tissue damage. 4. Scans rarely show the cause of back pain. 5. Pain with exercise and movement does not mean you are doing harm. 6. Back pain is not caused by poor posture. 7. Back pain is not caused by "a weak core". 8. Backs do not wear out with everyday loading and bending.
--

9. Pain flare-ups do not mean you are damaging yourself.
10. Injections, surgery and strong drugs usually aren't a cure.

Benefits of back pain education

Patient education plays an important role in the empowerment of patients to become successful self-managers of their condition. The benefits of education are that the patient can better understand their condition and is equipped with essential skills to manage their condition and know when to seek help. Therefore, patient education should be a core part of the healthcare professional's approach to providing care for a patient with back pain.

Overall, there is evidence that patient education can provide long-term reassurance, reduce pain-related distress, and reduce healthcare use in patients with acute or subacute LBP [31, 32]. Educational interventions for back pain as short as five minutes can benefit people for up to 12 months [31-33]. Additional benefits of back pain education [3, 13, 34, 35] may include:

- decreases dependency on health care providers.
- alleviates concern about the condition and its consequences.
- may lead to patients' increased understanding of their back problems.
- may enhance healthcare literacy.
- may enhance self-care.
- may enhance patients' use of active coping strategies.
- may facilitate behaviour change.
- may facilitate adherence to prescribed treatment.
- may empower patients to take actions that facilitates return to usual activities.
- may reduce the risk of chronicity and recurrence.
- may develop confidence for self-management.

Delivery of back pain education

Modes of delivering back pain education

Different modes of delivering back pain education [3, 15, 24, 36, 37] include:

- Verbal (e.g., discussion)
- Written (e.g., booklet, pamphlet)
- Audio visual (e.g., video)
- Virtual (e.g., tele-health education)
- Online or with a blended learning approach
- Individual or in-group
- Media campaigns

No one method of delivering back pain education is clearly more beneficial than the other [15, 37]. However, there are indications that combining different methods of delivery of education may be more effective [37]. Verbal education options offer the benefit of tailoring the educational message to be

patient specific and condition specific [38]. Good quality websites may offer the opportunity to complement other modes of delivery and support. However, there is currently limited high quality information for back pain available online [39] and there is limited evidence for the efficacy of website support for persistent pain [40].

Various factors may influence the effectiveness of back pain educational interventions [31, 38, 41] namely the duration of intervention, the practitioner beliefs, patient expectations, content covered, the use of a theory informed approach [4, 42] and provider training. Effective communication skills are a prerequisite for delivering educational interventions [43] (whether it be written, verbal or audiovisual).

Practical tips for providing back pain education

- **Format:** Provide information clearly and succinctly. Avoid information overload. Written material should have a clear font. Avoid technical jargon [41, 43].
- Consider the patient's **preferred learning style** [43].
- **Metaphors and analogies** could reduce catastrophizing [44], particularly if the patient can identify with the metaphor. One example of a metaphor used by Louw et al. [45] is the nervous system being compared to an alarm system and how an “extra-sensitive alarm system” can be linked to a sensitised nervous system.
- **Consider patient preferences about education:** Individuals with LBP preferred education that was clear, consistent, and personalised to their specific presentation that addressed prognosis, management, and self-management approaches, to improve their symptoms and occupational issues [41].
- **Use tailored/contextualized education strategies:** back pain education is not a “one size fits all” approach. The type and mode of education has to be tailored and built to suit the individual patient preference, the patient context, health care system context, resources available, the stage of the condition and response to treatment [14, 19, 46-48]. For example, back pain education regarding staying active needs to be tailored to individual circumstances [49].
- Advice and education regarding **return to work** is important since the 1-month not back at work timeframe is a crucial point for intervention to prevent long term work absence as a result of back pain [50]. Additionally, advice about return to work was listed as a patient preference for education about back pain [41].
- **Practitioner training** to deliver back pain education may influence outcomes [31]. The practitioner should be comfortable discussing and assessing psychosocial factors that may influence back pain.

Conclusion

Patient education forms a cornerstone of back pain management and may be delivered in many forms. Education should be tailored to be person centred and context relevant. Despite the growing body of evidence for the benefits of patient education for low back pain, more research is required regarding the effect of patient education on neck pain and thoracic pain [46, 51].

REFERENCES

- [1] Foster NE, Anema JR, Cherkin D, et al. Prevention and treatment of low back pain : evidence , challenges , and promising directions. *Lancet*. 2018;391:2368-2383. doi:10.1016/S0140-6736(18)30489-6
- [2] National Institute for Health and Clinical Excellence (NICE). Low back pain and sciatica in over 16s: assessment and management (NG59). Published 2016. Accessed June 23, 2020. <https://www.nice.org.uk/guidance/NG59/chapter/Recommendations#non-invasive-treatments-for-low-back-pain-and-sciatica>
- [3] Engers A, Jellema P, Wensing M, Van Der Windt DAWM, Grol R, Van Tulder MW. Individual patient education for low back pain. *Cochrane Database Syst Rev*. 2008;(1). doi:10.1002/14651858.CD004057.pub3
- [4] Bellamy R. An introduction to patient education : theory and practice. *Med Teach*. 2004;26(4):359-365. doi:10.1080/01421590410001679398
- [5] Hartvigsen J, Hancock MJ, Kongsted A, et al. Series Low back pain 1 What low back pain is and why we need to pay attention. *Lancet*. 2018;391:2356-2367. doi:10.1016/S0140-6736(18)30480-X
- [6] Itz CJ, Geurts JW, Van Kleef M, Nelemans P. Clinical course of non-specific low back pain: A systematic review of prospective cohort studies set in primary care. *Eur J Pain*. 2013;17(1):5-15. doi:10.1002/j.1532-2149.2012.00170.x
- [7] da C Menezes Costa L, Maher C, Hancock M, McAuley J, Herbert R, Costa L. The prognosis of acute and persistent low-back pain: a meta-analysis. *CMAJ*. 2012;184(11):1229-1230. doi:10.1503/cmaj.120627
- [8] Da Silva T, Mills K, Brown BT, Herbert RD, Maher CG, Hancock MJ. Risk of recurrence of low back pain: A systematic review. *J Orthop Sports Phys Ther*. 2017;47(5):305-313. doi:10.2519/jospt.2017.7415
- [9] Lin I, Wiles L, Waller R, et al. What does best practice care for musculoskeletal pain look like? Eleven consistent recommendations from high-quality clinical practice guidelines: Systematic review. *Br J Sports Med*. Published online 2019:1-10. doi:10.1136/bjsports-2018-099878
- [10] Sterling M, de Zoete RMJ, Coppieters I, Farrell SF. Best Evidence Rehabilitation for Chronic Pain Part 4: Neck Pain. *J Clin Med*. 2019;8(8):1219. doi:10.3390/jcm8081219
- [11] Buchbinder R, Hons M, Gross DP, Werner EL, Hayden JA. Understanding the Characteristics of Effective Mass Media Campaigns for Back Pain and Methodological Challenges in Evaluating Their Effects. *Spine (Phila Pa 1976)*. 2008;33(1):74-80.
- [12] Nkhata LA, Brink Y, Ernstzen D, Louw QA. A systematic review on self-management education campaigns for back pain. *South African J Physiother*. 2019;75(1):1-7. doi:10.4102/sajp.v75i1.1314
- [13] Steffens D, Maher CG, Pereira LSM, et al. Prevention of lowback pain a systematic review and meta-Analysis. *JAMA Intern Med*. 2016;176(2):199-208. doi:10.1001/jamainternmed.2015.7431
- [14] Rebbeck T. The role of exercise and patient education in the noninvasive management of whiplash. *J Orthop Sports Phys Ther*. 2017;47(7):481-491. doi:10.2519/jospt.2017.7138
- [15] Yu H, Côté P, Southerst D, et al. Does structured patient education improve the recovery and clinical outcomes of patients with neck pain? A systematic review from the Ontario Protocol for Traffic Injury Management (OPTIMA) Collaboration. *Spine J*. 2014;16(12):1524-1540. doi:10.1016/j.spinee.2014.03.039
- [16] Stander J, Grimmer K, Brink Y. A user-friendly clinical practice guideline summary for managing low back pain in South Africa. *South African J Physiother*. 2020;76(1):1-6. doi:10.4102/sajp.v76i1.1366
- [17] Oliveira CB, Maher CG, Pinto RZ, et al. Clinical practice guidelines for the management of non - specific low back pain in primary care : an updated overview. *Eur Spine J*. 2018;27(11):2791-2803. doi:10.1007/s00586-018-5673-2
- [18] Parikh P, Santaguida P, Macdermid J, Gross A, Eshtiaghi A. Comparison of CPG 's for the diagnosis , prognosis and management of non-specific neck pain : a systematic review. *BMC Musculoskelet Disord*. 2019;3:1-13.
- [19] Zahari Z, Ishak A, Justine M. 'The Effectiveness of Patient Education in Improving Pain, Disability and Quality of Life Among Older People with Low Back Pain: A Systematic Review'. *J Back Musculoskelet Rehabil*. 2020;33(2):245 – 254. doi:10.3233/BMR-181305
- [20] Waddell G, O'Connor M, Boorman S, Torsney B. Working backs Scotland: A public and professional health education campaign for back pain. *Spine (Phila Pa 1976)*. 2007;32(19):2139-2143. doi:10.1097/BRS.0b013e31814541bc
- [21] Werner EL, Ihlebæk C, Lærum E, Wormgoor MEA, Indah A. Low back pain media campaign: No effect on sickness behaviour. *Patient Educ Couns*. 2008;71(2):198-203. doi:10.1016/j.pec.2007.12.009
- [22] Suman A, Schaafsma FG, Bamarni J, Van Tulder MW, Anema JR. A multimedia campaign to improve back beliefs in patients with non-specific low back pain: a process evaluation. *BMC Musculoskelet Disord*. 2017;18(1):1-13. doi:10.1186/s12891-017-1551-z
- [23] Gross DP, Russell AS, Ferrari R, et al. Evaluation of a Canadian Back Pain Mass Media Campaign. *Spine (Phila Pa 1976)*. 2010;35(8):2467-2479. doi:10.1006/s0001-2818-017-1551-z
- [24] Keeffe MO, Maher CG, Stanton TR, et al. Mass media campaigns are needed to counter misconceptions about back pain and promote higher value care. *Br J Sport Med*. 2019;53(20):1261-1262. doi:10.1136/bjsports-2017-098367

- [25] Sullivan PBO, Caneiro JP, Sullivan KO, et al. Back to basics : 10 facts every person should know about back pain. *Br J Sports Med.* 2020;54(12):10-12. doi:10.1136/bjsports-2019-101611
- [26] Darlow B, Dowell A, Baxter GD, Mathieson F, Perry M, Dean S. The Enduring Impact of What Clinicians Say to People With Low Back Pain. *Ann Fam Med.* Published online 2013:527-534. doi:10.1370/afm.1518.
- [27] Sharma S, Traeger AC, Reed B, et al. Clinician and patient beliefs about diagnostic imaging for low back pain: a systematic qualitative evidence synthesis. *BMJ Open.* 2020;10(8):e037820. doi:10.1136/bmjopen-2020-037820
- [28] Main CJ, Foster N, Buchbinder R. How important are back pain beliefs and expectations for satisfactory recovery from back pain? *Best Pract Res Clin Rheumatol.* 2010;24(2):205-217. doi:10.1016/j.berh.2009.12.012
- [29] Evers S, Hsu C, Sherman KJ, et al. Patient Perspectives on Communication with Primary Care Physicians about Chronic Low Back Pain. *Perm J.* 2017;21:1-5. doi:10.7812/TPP/16-177
- [30] Chou L, Ranger TA, Peiris W, et al. Patients' perceived needs of health care providers for low back pain management: a systematic scoping review. *Spine J.* 2018;18(4):691-711. doi:10.1016/j.spinee.2018.01.006
- [31] Traeger AC, Hübscher M, Henschke N, Moseley GL, Lee H, McAuley JH. Effect of primary care based education on reassurance in patients with acute low back pain systematic review and meta-analysis. *JAMA Intern Med.* 2015;175(5):733-743. doi:10.1001/jamainternmed.2015.0217
- [32] Traeger AC, O'Hagan ET, Cashin A, McAuley JH. Reassurance for patients with non-specific conditions – a user's guide. *Brazilian J Phys Ther.* 2017;21(1):1-6. doi:10.1016/j.bjpt.2016.12.007
- [33] Traeger A, Lee H, Hübscher M, et al. Effect of Intensive Patient Education vs Placebo Patient Education on Outcomes in Patients With Acute Low Back Pain: A Randomized Clinical Trial. *JAMA Neurology.* doi:10.1001/jamaneuro.2018.3376
- [34] Hayes C, Hodson FJ. A Whole-Person Model of Care for Persistent Pain : From Conceptual Framework to Practical Application. *Pain Med.* 2011;2:1738-1749.
- [35] Pincus T, Holt N, Vogel S, et al. Cognitive and affective reassurance and patient outcomes in primary care : A systematic review. *Pain.* 2013;154(11):2407-2416. doi:10.1016/j.pain.2013.07.019
- [36] Malfliet A, Kregel J, Meeus M, et al. Blended-Learning Pain Neuroscience Education for People With Chronic Spinal Pain: Randomized Controlled Multicenter Trial. *Phys Ther.* 2018;98(5):357-368.
- [37] Cottrell MA, Galea OA, O'Leary SP, Hill AJ, Russell TG. Real-time telerehabilitation for the treatment of musculoskeletal conditions is effective and comparable to standard practice: A systematic review and meta-analysis. *Clin Rehabil.* 2017;31(5):625-638. doi:10.1177/0269215516645148
- [38] Tegner H, Frederiksen P, Esbensen BA, Juhl C. Neurophysiological Pain Education for Patients With Chronic Low Back Pain. *Clin J Pain.* 2018;34(8):778-786. doi:10.1097/AJP.0000000000000594
- [39] Ferreira G, Traeger AC, Machado G, O'Keefe M, Maher CG. Credibility, accuracy, and comprehensiveness of internet-based information about low back pain: A systematic review. *J Med Internet Res.* 2019;21(5):1-10. doi:10.2196/13357
- [40] Devan H, Perry MA, van Hattem A, et al. Do pain management websites foster self-management support for people with persistent pain? A scoping review. *Patient Educ Couns.* 2019;102(9):1590-1601. doi:10.1016/j.pec.2019.04.009
- [41] Lim YZ, Chou L, Tm R, et al. People with low back pain want clear , consistent and personalised information on prognosis , treatment options and self-management strategies : a systematic review. *J Physiother.* 2019;65(3):124-135. doi:10.1016/j.jphys.2019.05.010
- [42] Syx RL. The practice of patient education: The theoretical perspective. *Orthop Nurs.* 2008;27(1):50-56. doi:10.1097/01.NOR.0000310614.31168.6b
- [43] Pugliese M, Wolff A. The Value of Communication, Education, and Self-Management in Providing Guideline-Based Care: Lessons Learned from Musculoskeletal Telerehabilitation During the COVID-19 Crisis. *HSS J.* Published online 2020. doi:10.1007/s11420-020-09784-2
- [44] Gallagher L, McAuley J, Moseley GL. A randomized-controlled trial of using a book of metaphors to reconceptualize pain and decrease catastrophizing in people with chronic pain. *Clin J Pain.* 2013;29(1):20-25. doi:10.1097/AJP.0b013e3182465cf7
- [45] Louw A, Puenteadura EJ, Diener I, Zimney KJ, Cox T. Pain neuroscience education: Which pain neuroscience education metaphor worked best? *South African J Physiother.* 2019;75(1):1-7. doi:10.4102/sajp.v75i1.1329
- [46] Gross A, Forget M, St George K, et al. Patient education for neck pain. *Cochrane Database Syst Rev.* Published online 2012. doi:10.1002/14651858.cd005106.pub4
- [47] Croft P, Louw Q, Briggs AM. Transforming back pain care—why, what, and how? *Pain.* 2021;00(00):1-2. doi:10.1097/j.pain.0000000000001989
- [48] Wittink H, Oosterhaven J. Patient education and health literacy. *Musculoskelet Sci Pract.* 2018;38(May):120-127. doi:10.1016/j.msksp.2018.06.004
- [49] Hasenbring MI, Pincus T. Effective reassurance in primary care of low back pain: What messages from clinicians are most beneficial at early stages? *Clin J Pain.* 2015;31(2):133-136. doi:10.1097/AJP.0000000000000097
- [50] Wynne-jones G, Cowen J, Jordan JL, et al. Absence from work and return to work in people with back pain : a systematic review and meta-analysis. *Occup Environ Med.* 2014;71:448-456. doi:10.1136/oemed-2013-101571

[51] Southerst D, Marchand AA, Côté P, et al. The effectiveness of noninvasive interventions for musculoskeletal thoracic spine and chest wall pain: A systematic review by the Ontario protocol for traffic injury management (OPTIMa) Collaboration. *J Manipulative Physiol Ther.* 2015;38(7):521-531. doi:10.1016/j.jmpt.2015.06.001

AUTHORS

Dawn Ernstzen, PhD, MPhil, BScPhysio
Senior lecturer
Division of Physiotherapy, Department of Rehabilitation and Health Sciences
Stellenbosch University
South Africa

Jessica Stander, PhD, MMT, BScPhysio
Department of Physiotherapy, Melbourne School of Health Sciences
University of Melbourne
Australia

Loveness A. Nkhata, PhD, MScMed ClinEpi, MPH, BSc PT
Department of Physiotherapy
School of Health Sciences
University of Zambia
Zambia

REVIEWERS

Adrian Traeger, PhD
School of Public Health
Faculty of Medicine and Health
The University of Sydney
Australia

Mary O'Keefe, PhD
Institute for Musculoskeletal Health
New South Wales
Australia