Massage Therapy: A Person-Centred Approach to Chronic Pain

Richard Lebert, RMT^{1*}, Monica Noy, MSc, RMT², Eric Purves, MSc, RMT³, Jacqueline Tibbett, PhD, LMT⁴

¹The School of Health Science, Community Services and Creative Design, Lambton College, Sarnia, ON, Canada, ²Private Practice, Toronto, ON, Canada, ³Private Practice, Victoria, BC, Canada, ⁴Private Practice, Miami, FL, USA

https://doi.org10.3822/ijtmb.v15i3.713

Person-centred care is an emergent movement within evidence-based medicine that has the potential to transform the health care system. Person-centred care is a collaborative approach in which health care professionals partner with patients to co-design and deliver personalized care with a focus on physical comfort, emotional well-being, and patient empowerment. By embracing person-centred care through two-way communication, patient engagement, and self-management strategies, massage therapists have the potential to further reduce suffering associated with chronic pain in our society.

KEYWORDS: person-centred care; massage therapy; complementary and integrative health; chronic pain; pain assessment; evidence-based health care

INTRODUCTION

A Person-Centred Approach as an Enhancement to Evidence-Based Medicine

In the 1990's. David Sackett and Gordon Guyatt introduced evidence-based medicine as the conscientious use of current best evidence in making decisions about patient care. (1,2) Evidence-based medicine (also known as evidence-based practice) is a process intended to reduce the risk of harm and improve decision-making by emphasizing the use of evidence from well-designed research. This includes the use of logical reasoning, and the gathering of ideas and knowledge from many overlapping disciplines. The enduring contributions of this movement are three principles of evidence-based practice (best available evidence, clinical expertise, and patient values) that are transforming health care. (3) A definition of terms is provided in the Glossary of Terms for Massage Therapists (Table 1).

Evidence-based practice is a cohesive approach with a goal of improving patient outcomes. It is a key indicator of high-quality patient care, but some have argued that individual patient values and goals are often undervalued. (4,5) In response, another emergent movement that has the potential to transform the health care system is the implementation of personcentred care.

Person-centred care is a collaborative approach in which health care professionals partner with patients to deliver personalized care with a focus on physical comfort, emotional well-being, and patient empowerment. (6-9) Person-centred care is an approach that serves to reorient perspective towards the individual, and it places an emphasis on shared decision-making based on the individual's circumstances. In this article we explore person-centred clinical reasoning, according to the ideals of evidence-based health care, for the profession of massage therapy.

Treatment for Chronic Pain

The International Association for the Study of Pain (IASP) states that "pain is an unpleasant sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage." (10) The definition of pain was changed in 2020 to indicate that pain is an experience that is unique to the person and that should be respected even if the source of pain is not identified. This change corresponds with an evidence-based shift away from a pathoanatomical

TABLE 1. Glossary of Terms for Massage Therapists (as used in this manuscript)

Term	Definition	Consideration for Massage Therapists
Massage Therapy	"Massage therapy consists of the application of massage and non-hands-on components, including health promotion and education messages, for self-care and health maintenance; therapy, as well as outcomes, can be influenced by: therapeutic relationships and communication; the therapist's education, skill level, and experience; and the therapeutic setting" (71)	Massage therapy is a multi-modal treatment approach. Scope of practice, professional standards and ethics provide the framework to decide whether a modality, technique or tool is suitable to incorporate into Massage Therapy.
Person-Centred Care	"'Person-centredness' refers to a philosophy intended to underpin care and service delivery focused on: meeting the person's needs, values or preferences; optimising the person's experiences with care; and fully involving persons' perspectives into care." (6)	Person-centred care is a collaborative approach in which health care professionals' partner with patients to deliver personalized care with a focus on physical comfort, emotional wellbeing, and patient empowerment.
Evidence-based practice	"Evidence based medicine is the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients. The practice of evidence based medicine means integrating individual clinical expertise with the best available external clinical evidence from systematic research." (2)	Evidence-based practice is a process intended to reduce the risk of harm and improve decision-making by emphasizing the use of evidence from well-designed research. This includes the use of logical reasoning and the gathering of ideas and knowledge from many overlapping disciplines.
Shared Decision- Making	"Shared decision making is a consultation process where a clinician and patient jointly participate in making a health decision, having discussed the options and their benefits and harms, and having considered the patient's values, preferences and circumstances." (39)	Patients and therapists work together to develop a shared appreciation of the patient's situation and decide how to respond well to it.
Therapeutic Alliance	"Therapeutic alliance is a dynamic construct within the clinical encounter and is influenced reciprocally between the person seeking care and the physiotherapist by biological, social and psychological contributing factors." (72)	Therapeutic alliance involves building a rapport. This may help enhance patient motivation and a sense of ownership over the treatment plan.
Pain	"An unpleasant sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage." (10)	This definition represents a shift from a pathoanatomical approach to contemporary view of pain recognizing that the experience of pain is multifactorial and is influenced to varying degrees by biological, psychological, and social factors.
Chronic Pain	"Pain that persists or recurs for more than 3 months. In chronic pain syndromes, pain can be the sole or a leading complaint and requires special treatment and care." (11)	While massage therapy can play a role in the documented pain-relieving effects of manual interventions, ascribing an individual's experience of pain through pathoanatomical tissue-driven reasons is a reductionist approach that oversimplifies the complex multi-factorial process of chronic pain.

('structural') focus on pain treatment that includes recognizing the experience of pain is multi-factorial and is influenced to varying degrees by biological, psychological, and social factors.⁽¹⁰⁾

Chronic pain is defined as pain that persists or recurs for more than three months⁽¹¹⁾ and is highly prevalent (affecting an estimated 30% of people worldwide).⁽¹²⁾ Individuals suffering from chronic pain can

be poorly served with conventional pain management interventions.(13,14) Medical treatment options for chronic pain include opioids, corticosteroid injections, and arthroscopic and other invasive surgeries. These interventions carry a considerable risk for adverse events and, when compared to placebo, have minimal efficacy for people experiencing chronic pain. (13,15-23) The current medical landscape and the high impact of chronic pain present a need to develop effective evidence-based strategies. (12,24-27) Doing so may require re-evaluating long-held assumptions that relate to the assessment and treatment of people experiencing chronic pain.

Caring for individuals by way of chronic pain management is shifting away from a pathoanatomical approach to one that prioritizes function and quality of life, rather than complete pain relief. (12,28) As part of this shift, clinical decision-making ought to reflect the understanding that structural abnormalities alone do not explain or necessarily predict pain. (29-32) A personcentred approach acknowledges that patient presentation and recovery is variable and is based on the understanding that biological, psychological, and social factors are integral to the experience. (33,34) Instead of focusing primarily on pathoanatomical structures, both clinicians and patients work together to improve function and quality of life.

Evidence Supports a Person-Centred Approach to Chronic Pain

A person-centred approach is one that seeks to understand better the dynamic between biological, psychological, and social factors. This information is used to formulate a clinical hypothesis that does not seek a sole source of pain. (35,36) If adopted widely, a person-centred approach to care helps massage therapists understand the complexity of the person's pain experience, leading to improved patient—therapist relationships, improved self-efficacy, and better health outcomes for people with chronic pain.

A clinical assessment is a key step in this process as it helps establish a meaningful connection and aids clinical decision-making based on patients' limitations, goals, course of pain, and prognostic factors for delayed recovery. Listening to the personal narrative can help the massage therapist and patient identify meaningful goals,

and shared decision-making can help to identify the most appropriate intervention based on pain presentation, functional limitations, and psychosocial factors. A quick guide to practices that help establish connection within the clinical encounter is provided in Table 2.⁽³⁷⁾

The distinguishing marker of personcentred care is that it nurtures a supportive relationship, emphasizes two-way communication, and empowers patient participation in health care decisions. The added value of a person-centred approach is that, even when underlying mechanisms are unclear, by understanding an individual's functional limitations and how pain is affecting their activities of daily life, the practitioner can still formulate a meaningful treatment plan. This is accomplished by using shared decision-making in which patients and massage therapists work together to develop a shared appreciation of the patient's situation and decide how to respond. (38-40) Shared decision-making involves three key actions: recognizing and acknowledging that a decision is required; knowing and understanding the best available evidence; and incorporating the patient's values and preferences into the decision.(41)

DISCUSSION

Applying a Person-Centred Approach to Massage Practice

Massage therapists see themselves as empathetic health professionals who focus on therapeutic relationships, individualized care, and patient empowerment. (42,43)

TABLE 2. Five Practices to Help Establish a Meaningful Connection with Patients in the Clinical Encounter⁽³⁷⁾

Prepare with intention (take a moment to prepare and focus before greeting a patient).

Listen intently and completely (sit down, lean forward, avoid interruptions).

Agree on what matters most (find out what the patient cares about and incorporate these priorities into the visit agenda).

Connect with the patient's story (consider life circumstances that influence the patient's health; acknowledge positive efforts; celebrate successes).

Explore emotional cues (notice, name, and validate the patient's emotions).

It is because of these values in the profession that massage therapists are well-suited to deliver person-centred care for individuals experiencing chronic pain. There are many ways that massage therapists could apply person-centred care. Here we will expand on three strategies that massage therapists can achieve this: 1) using person-centred communication and shared decision-making; 2) facilitating health literacy and patient engagement; and 3) promoting the use of active self-management strategies.

1. Using person-centred communication and shared decision-making

Communication is as important as any manual intervention massage therapists perform. The combination of manual therapy with a de-threatening explanation provided in a safe and supportive context can be a powerful analgesic. (44,45) Effective communication is also fundamental for shared decision-making; clinical practice guidelines for chronic pain emphasize the importance of shared decision-making and a discussion of risks and treatment options. (46) To provide easy-to-understand and accessible information, massage therapists should avoid the use of medical jargon and embrace the use of patient education and decision aids to facilitate an evidence-based understanding of treatment options and enhance patient understanding. (38,47-49)

Incorporating positive narratives that reassure and educate the patient are consistent with current best practices. (50) When used correctly, language is a tool to enable and encourage; when used incorrectly, language may contribute to the maintenance of their pain state. (51) The massage therapist must be careful to avoid language that is overly pathoanatomical and suggests damage and poor prognosis, such as musculoskeletal components being "out of alignment" or "weak". This type of language can elicit nocebo effects, creating feelings of brokenness, damage, weakness, and fragility. (52-55) The long-term effects that health care providers' language and beliefs can have on their patients must be considered with every patient interaction; this impact is well-established in the literature.(56-58)

2. Facilitating health literacy and patient engagement

It is important that massage therapists have access to educational resources that

are evidence-based. Choosing Wisely (ChoosingWisely.org) and Wiser Health-care (WiserHealthcare.org) are organizations that provide resources for massage therapists and patients about low value interventions which are no longer recommended for people with musculoskeletal pain based on current research. These are resources that can aid patients and massage therapists as they engage in shared decision-making when choosing treatment options for musculoskeletal pain.

A positive therapeutic alliance based on empathy and mutual trust can improve treatment adherence and amplify benefits from the actual treatment. (59-60) Developing therapeutic alliance helps with adherence to the treatment plan and may keep patients engaged with self-management strategies. Reframing care from the pathoanatomical to a person-centred supportive self-management approach has the benefits of a positive therapeutic alliance and patient empowerment. (61) Therapeutic alliance can be used to shift patient expectations and set realistic, individualized goals that prioritize function and quality of life.(12)

3. Promoting the use of active selfmanagement strategies

Physical activity and exercise programs may play a role in decreasing the socioeconomic burden associated with chronic pain. Physical activity has been shown to reduce symptoms of anxiety and pain, and to improve function. (62-65) Additionally, most forms of low-impact physical activity, such as walking, Pilates, Tai Chi, yoga, or aquatic therapy, are considered safe and beneficial for health in people with multiple comorbidities. (66-68) The World Health Organization recommends healthy adults should undertake 150–300 min of moderate-intensity, or 75–150 min of vigorous-intensity physical activity, or some equivalent combination of moderate-intensity and vigorous-intensity aerobic physical activity, per week. These guidelines highlight the importance of physical activity (both aerobic and strengthening activities), and emphasize the value of any activity, of any duration, and any intensity. (67)

Exercise programs for people with chronic pain should take into account peoples' specific needs, abilities, and preferences. There may be hesitancy to setting up a program; however, here are some suggestions that may be useful for people with chronic pain. Start low and go slow (e.g., 5 min every other day) and aim for a moderate level of intensity. Use a graded activity approach—add 10 min every three to four weeks, towards a goal of 30 min of exercise five days a week. If you don't know where to start, pick low impact physical activity, such as walking, Tai Chi, yoga or aquatic therapy. In the end, the key to effectiveness of exercise is adherence, so keep in mind people with chronic pain should be encouraged to perform the exercise that they enjoy to promote adherence.

Massage therapy could play a supportive role in promoting physical activities, particularly ones that the individual finds enjoyable and meaningful. Scope of practice, professional standards, and ethics provide the framework to decide whether a modality, technique or tool is suitable to incorporate into a massage therapy treatment plan. When local licensing and scope of practice allows it, exercise may be included as part of a treatment plan to help patients actively manage their pain. (69,70)

CONCLUSION

Improving the way chronic pain is treated and managed by massage therapists is essential for improving treatment outcomes. Contemporary best-practices for pain care support a multi-dimensional approach that understands the intersection of biological, psychological, and social factors and empowers people with shared decision-making. Providing a person-centred approach that includes evidence-based practice and shared decision-making facilitates self-efficacy and is of paramount importance for massage therapists. Embracing a person-centred approach can help to reorient perspective towards the individual and tailor treatment plans based on each patient's unique values.

Key Takeaways

- 1. Choose words carefully: avoid overly pathoanatomical language that implies a person is damaged.
- 2. Facilitate a trusting relationship through connecting with a person's story and emotional cues, and their values and goals.
- 3. Consider the use of patient education and decision aids that encourage health literacy.

- 4. Use high quality, evidence-based resources and shared decision-making with the patient.
- 5. Promote the use of self-management strategies, such as participation in physical activity, that are enjoyable and meaningful to the individual.

ACKNOWLEDGEMENTS

RL created the concept and wrote the first draft. JT, MN and EP revised, improved, and rewrote the first draft. All authors contributed to the article and approved the final version of the article.

CONFLICT OF INTEREST NOTIFICATION

The authors declare there are no conflicts of interest.

COPYRIGHT

Published under the <u>CreativeCommons</u> <u>Attribution-NonCommercial-NoDerivs</u> 3.0 License.

REFERENCES

- 1. Evidence-Based Medicine Working Group. Evidence-based medicine: a new approach to teaching the practice of medicine. *JAMA*. 1992;268(17):2420–2425.
- 2. Sackett DL, Rosenberg WM, Gray JA, Haynes RB, Richardson WS. Evidence based medicine: what it is and what it isn't. *BMJ*. 1996;312(7023):71–72.
- 3. Djulbegovic B, Guyatt GH. Progress in evidence-based medicine: a quarter century on. *Lancet*. 2017;390(10092):415–423.
- 4. Kelly MP, Heath I, Howick J, Greenhalgh T. The importance of values in evidence-based medicine. *BMC Med Ethics*. 2015;16(1):69.
- 5. Weaver RR. Reconciling evidence-based medicine and patient-centred care: defining evidence-based inputs to patient-centred decisions. *J Eval Clin Pract*. 2015;21(6):1076–1080.
- Jesus TS, Bright F, Kayes N, Cott CA. Personcentred rehabilitation: what exactly does it mean? Protocol for a scoping review with thematic analysis towards framing the concept and practice of person-centred rehabilitation. *BMJ Open*. 2016;6(7):e011959.
- 7. Jesus TS, Papadimitriou C, Bright FA, Kayes NM, Pinho CS, Cott CA. Person-centered rehabilitation model: framing the concept and practice

- of person-centered adult physical rehabilitation based on a scoping review and thematic analysis of the literature [published online ahead of print, 2021 Jul 3]. *Arch Phys Med Rehabil*. 2021;S0003-9993(21)00401-9.
- 8. Leplege A, Gzil F, Cammelli M, Lefeve C, Pachoud B, Ville I. Person-centredness: conceptual and historical perspectives. *Disabil Rehabil*. 2007;29(20-21):1555–1565.
- 9. Santana MJ, Manalili K, Jolley RJ, Zelinsky S, Quan H, Lu M. How to practice person-centred care: a conceptual framework. *Health Expect*. 2018;21(2):429–440.
- Raja SN, Carr DB, Cohen M, Finnerup NB, Flor H, Gibson S, et al. The revised International Association for the Study of Pain definition of pain: concepts, challenges, and compromises. *Pain*. 2020;161(9):1976–1982.
- Treede RD, Rief W, Barke A, Aziz Q, Bennett MI, Benoliel R. et al. Chronic pain as a symptom or a disease: the IASP Classification of Chronic Pain for the International Classification of Diseases (ICD-11). Pain. 2019;160(1):19–27.
- 12. Cohen SP, Vase L, Hooten WM. Chronic pain: an update on burden, best practices, and new advances. *Lancet*. 2021;397(10289):2082–2097.
- 13. Busse JW, Craigie S, Juurlink DN, Buckley DN, Wang L, Couban RJ, et al. Guideline for opioid therapy and chronic noncancer pain. *CMAJ*. 2017;189(18):E659–E666.
- 14. Goldberg DS, McGee SJ. Pain as a global public health priority. *BMC Public Health*. 2011;11(1):770.
- 15. Busse JW, Wang L, Kamaleldin M, Craigie S, Riva JJ, Montoya L, et al. Opioids for chronic noncancer pain: a systematic review and meta-analysis. *JAMA*. 2018;320(23):2448–2460.
- 16. Chou R, Côté P, Randhawa K, Torres P, Yu H, Nordin M, et al. The Global Spine Care Initiative: applying evidence-based guidelines on the noninvasive management of back and neck pain to low- and middle-income communities. *Eur Spine* J. 2018;27(Suppl 6):851–860.
- 17. Chou R, Hartung D, Turner J, Blazina I, Chan B, Levander X, et al. *Opioid Treatments for Chronic Pain*. Comparative Effectiveness Review No. 229. AHRQ Pub. No. 20-EHC011. Rockville, MD: Agency for Healthcare Research and Quality; 2020.
- 18. Foster NE, Anema JR, Cherkin D, Chou R, Cohen SP, Gross DP, et al. Prevention and treatment of low back pain: evidence, challenges, and promising directions. *Lancet*. 2018;391(10137):2368–2383.
- 19. Harris IA, Sidhu V, Mittal R, Adie S. Surgery for chronic musculoskeletal pain: the question of evidence. *Pain*. 2020;161(Suppl 1):S95–S103.
- Kompel AJ, Roemer FW, Murakami AM, Diaz LE, Crema MD, Guermazi A. Intra-articular corticosteroid injections in the hip and knee: perhaps not as safe as we thought? *Radiology*. 2019;293(3): 656–663.

- 21. Tölle T, Fitzcharles MA, Häuser W. Is opioid therapy for chronic non-cancer pain associated with a greater risk of all-cause mortality compared to non-opioid analgesics? A systematic review of propensity score matched observational studies. *Eur J Pain*. 2021;25(6):1195–1208.
- 22. Tucker HR, Scaff K, McCloud T, Carlomagno K, Daly K, Garcia A, et al. Harms and benefits of opioids for management of non-surgical acute and chronic low back pain: a systematic review. *Br J Sports Med*. 2020;54(11):664.
- 23. Wertheimer G, Mathieson S, Maher CG, Lin CW, McLachlan AJ, Buchbinder R, et al. The prevalence of opioid analgesic use in people with chronic noncancer pain: systematic review and meta-analysis of observational studies. *Pain Med*. 2021;22(2):506–517.
- 24. Chang ET, Oberman RS, Cohen AN, Taylor SL, Gumm E, Mardian AS, et al. Increasing access to medications for opioid use disorder and complementary and integrative health services in primary care. *J Gen Intern Med*. 2020;35(Suppl 3):918–926.
- 25. Cherkin DC, Deyo RA, Goldberg H. Time to align coverage with evidence for treatment of back pain. *J Gen Intern Med.* 2019;34(9):1910–1912.
- 26. Kongsted A, Kent P, Quicke JG, Skou ST, Hill JC. Risk-stratified and stepped models of care for back pain and osteoarthritis: are we heading towards a common model? *Pain Rep.* 2020;5(5):e843.
- 27. Manchikanti L, Singh V, Kaye AD, Hirsch JA. Lessons for better pain management in the future: learning from the past. *Pain Ther.* 2020;9(2):373–391.
- 28. Friedman DJ, Tulloh L, Khan KM. Peeling off musculoskeletal labels: sticks and stones may break my bones, but diagnostic labels can hamstring me forever [published online ahead of print, 2021 May 6]. *Br J Sports Med*. 2021;55(21):1184–1185.
- 29. Hall AM, Aubrey-Bassler K, Thorne B, Maher CG. Do not routinely offer imaging for uncomplicated low back pain. *BMJ*. 2021;372.
- 30. Lewis JS, Cook CE, Hoffmann TC, O'Sullivan P. The elephant in the room: too much medicine in musculoskeletal practice. *J Orthop Sports Phys Ther*. 2020;50(1):1–4.
- 31. Lin I, Wiles L, Waller R, Goucke R, Nagree Y, Gibberd M, 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*. 2020;54(2):79–86.
- 32. Maher CG, O'Keeffe M, Buchbinder R, Harris IA. Musculoskeletal healthcare: Have we over-egged the pudding? *Int J Rheum Dis.* 2019;22(11):1957–1960
- Engel GL. The need for a new medical model: a challenge for biomedicine. Science. 1977;196(4286):129–136.
- 34. Engel GL. The clinical application of the biopsychosocial model. *Am J Psychiatry*. 1980;137(5):535–544.

- 35. Langford DJ, Tauben DJ, Sturgeon JA, Godfrey DS, Sullivan MD, Doorenbos AZ. Treat the patient, not the pain: using a multidimensional assessment tool to facilitate patient-centered chronic pain care. *J Gen Intern Med.* 2018;33(8):1235–1238.
- 36. Wideman TH, Edwards RR, Walton DM, Martel MO, Hudon A, Seminowicz DA. The multimodal assessment model of pain: a novel framework for further integrating the subjective pain experience within research and practice. *Clin J Pain*. 2019;35(3):212–221.
- 37. Zulman DM, Haverfield MC, Shaw JG, Brown-Johnson CG, Schwartz R, Tierney AA, et al. Practices to foster physician presence and connection with patients in the clinical encounter [published correction appears in JAMA. 2020 Mar 17;323(11):1098]. *JAMA*. 2020;323(1):70–81.
- 38. Carmona C, Crutwell J, Burnham M, Polak L. Shared decision-making: summary of NICE guidance. *BMJ*. 2021;373.
- Hoffmann TC, Légaré F, Simmons MB, McNamara K, McCaffery K, Trevena LJ, et al. Shared decision making: what do clinicians need to know and why should they bother? *Med J Aust*. 2014;201(1): 35–39.
- 40. Hoffmann TC, Lewis J, Maher CG. Shared decision making should be an integral part of physiotherapy practice. *Physiotherapy*. 2020;107:43–49.
- 41. Légaré F, Witteman HO. Shared decision making: examining key elements and barriers to adoption into routine clinical practice. Health Aff. 2013;32(2):276-284.
- 42. Baskwill A, Vanstone M, Harnish D, Dore K. "I am a healthcare practitioner": a qualitative exploration of massage therapists' professional identity. *J Complement Integr Med.* 2020;17(2).
- 43. Baskwill A, Vanstone M, Harnish D, Dore K. Identification of common features within massage therapists' professional identity [published online ahead of print, 2021 May 10]. *J Complement Integr Med*. 2022;19(1):91–99.
- 44. Bishop MD, Torres-Cueco R, Gay CW, Lluch-Girbés E, Beneciuk JM, Bialosky JE. What effect can manual therapy have on a patient's pain experience? *Pain Manag.* 2015;5(6):455–464.
- 45. Geri T, Viceconti A, Minacci M, Testa M, Rossettini G. Manual therapy: exploiting the role of human touch. *Musculoskelet Sci Pract*. 2019;44:102044.
- 46. Carville S, Constanti M, Kosky N, Stannard C, Wilkinson C. Chronic pain (primary and secondary) in over 16s: summary of NICE guidance. *BMJ*. 2021;373.
- 47. Heen AF, Vandvik PO, Brandt L, Achille F, Guyatt GH, Akl EA, et al. Decision aids linked to evidence summaries and clinical practice guidelines: results from user-testing in clinical encounters. *BMC Med Inform Decis*. 2021;21(1):202.
- 48. Muscat DM, Shepherd HL, Nutbeam D, Trevena L, McCaffery KJ. Health literacy and shared decision-making: exploring the relationship to enable

- meaningful patient engagement in healthcare. *J Gen Intern Med.* 2021;36(2):521–524.
- 49. Wittink H, Oosterhaven J. Patient education and health literacy. *Musculoskelet Sci Pract*. 2018;38:120–127.
- 50. Toye F, Belton J, Hannink E, Seers K, Barker K. A healing journey with chronic pain: a meta-ethnography synthesizing 195 qualitative studies. *Pain Med*. 2021;22(6):1333–1344.
- 51. Wilson D, Williams M, Butler D. Language and the pain experience. *Physiother Res Int*. 2009;14(1):56–65.
- 52. Barsky AJ. The iatrogenic potential of the physician's words [published correction appears in JAMA. 2018 Feb 27;319(8):833]. *JAMA*. 2017;318(24):2425–2426.
- 53. Luks AM, Goldberger ZD. Watch your language!— misusage and neologisms in clinical communication. *JAMA Intern Med.* 2021;181(1):5–6.
- 54. Moseley GL, Butler DS. Fifteen years of explaining pain: the past, present, and future. *J Pain*. 2015;16(9):807–813.
- 55. Stewart M, Loftus S. Sticks and stones: the impact of language in musculoskeletal rehabilitation. *J Orthop Sports Phys Ther*. 2018;48(7):519–522.
- 56. Caneiro JP, Bunzli S, O'Sullivan P. Beliefs about the body and pain: the critical role in musculoskeletal pain management. *Braz J Phys Ther*. 2021;25(1):17–29.
- 57. Darlow B, Fullen BM, Dean S, Hurley DA, Baxter GD, Dowell A. The association between health care professional attitudes and beliefs and the attitudes and beliefs, clinical management, and outcomes of patients with low back pain: a systematic review. *Eur J Pain*. 2012;16(1):3–17.
- 58. Nickel B, Barratt A, Copp T, Moynihan R, McCaffery K. Words do matter: a systematic review on how different terminology for the same condition influences management preferences. *BMJ Open*. 2017;7(7):e014129.
- 59. Kaptchuk TJ, Hemond CC, Miller FG. Placebos in chronic pain: evidence, theory, ethics, and use in clinical practice. *BMJ*. 2020;370.
- 60. Kinney M, Seider J, Beaty AF, Coughlin K, Dyal M, Clewley D. The impact of therapeutic alliance in physical therapy for chronic musculoskeletal pain: a systematic review of the literature. *Physiother Theory Pract.* 2020;36(8):886–898.
- 61. Lewis J, O'Sullivan P. Is it time to reframe how we care for people with non-traumatic musculoskeletal pain? *Br J Sports Med*. 2018;52(24):1543–1544.
- 62. Belavy DL, Van Oosterwijck J, Clarkson M, Dhondt E, Mundell NL, Miller CT, et al. Pain sensitivity is reduced by exercise training: evidence from a systematic review and meta-analysis. *Neurosci Biobehav Rev.* 2021;120:100–108.
- 63. Geneen LJ, Moore RA, Clarke C, Martin D, Colvin LA, Smith BH. Physical activity and exercise for chronic pain in adults: an overview of Cochrane Reviews. *Cochrane Database Syst Rev.* 2017;4(4):CD011279.

- Hayden JA, Ellis J, Ogilvie R, Malmivaara A, van Tulder MW. Exercise therapy for chronic low back pain. Cochrane Database Syst Rev. 2021;9(9):CD009790.
- 65. Pedersen BK, Saltin B. Exercise as medicine—evidence for prescribing exercise as therapy in 26 different chronic diseases. *Scand J Med Sci Sports*. 2015;25(Suppl 3):1–72.
- 66. Bricca A, Harris LK, Jäger M, Smith SM, Juhl CB, Skou ST. Benefits and harms of exercise therapy in people with multimorbidity: a systematic review and meta-analysis of randomised controlled trials [published correction appears in Ageing Res Rev. 2020 Dec;64:101190]. Ageing Res Rev. 2020;63:101166.
- 67. Bull FC, Al-Ansari SS, Biddle S, Borodulin K, Buman MP, Cardon G, et al. World Health Organization 2020 guidelines on physical activity and sedentary behaviour. *Br J Sports Med*. 2020;54(24):1451–1462.
- 68. Maestroni L, Read P, Bishop C, Papadopoulos K, Suchomel TJ, Comfort P, et al. The benefits of strength training on musculoskeletal system health: practical applications for interdisciplinary care. *Sports Med.* 2020;50(8):1431–1450.
- 69. Hutting N, Johnston V, Staal JB, Heerkens YF. Promoting the use of self-management strategies for people with persistent musculoskeletal disorders: the role of physical therapists. *J Orthop Sports Phys Ther.* 2019;49(4):212–215.

- 70. Kennedy AB, Cambron JA, Dexheimer JM, Trilk JL, Saunders RP. Advancing health promotion through massage therapy practice: a cross-sectional survey study. *Prev Med Rep.* 2018;11:49–55.
- 71. Kennedy AB, Cambron JA, Sharpe PA, Travillian RS, Saunders RP. Clarifying definitions for the massage therapy profession: the results of the Best Practices Symposium. *Int J Ther Massage Bodywk*. 2016;9(3):15–26.
- 72. Søndenå P, Dalusio-King G, Hebron C. Conceptualisation of the therapeutic alliance in physiotherapy: is it adequate? *Musculoskelet Sci Pract*. 2020;46:102131.

Corresponding author: Richard Lebert, RMT, The School of Health Science, Community Services and Creative Design, Lambton College, 1457 London Rd., Sarnia, ON Canada N7S 6K4

E-mail: richard.lebert@gmail.com