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What is the evidence for the use of pilates for management of nonspecific chronic low back pain in adults?

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Relevant Discipline	Physiotherapists
Sources searched	The Cochrane library, Medline, Embase and Scopus were searched on 9th of September 2020, as well as Google Scholar and PEDro on the 14th of September 2020
Quality appraisal of the body of Evidence	**Strength of Evidence**: 3 studies included were systematic reviews of LEVEL II intervention studies, and 4 studies were LEVEL II Randomised controlled trials (RCTs) as per the NHRMC levels of evidence. All studies were relevant, high quality and displayed congruent results for the topic of interest.
	Statistical significance: All of the studies included had a 95% confidence interval.
	Clinical significance: The findings from this review were written to determine the effects of Pilates upon management of chronic non-specific low back pain in adults. This could help inform allied health practitioners in determining whether Pilates is a relevant treatment for these populations; and whether it could be potentially superior to any interventions currently offered.
	External Validity/Applicability: The studies chosen were applicable and relevant to the population specified.
Summary of Evidence findings	A Pilates program lasting 6-12 weeks has shown to provide significant improvements in reduction of pain, disability and kinesiophobia in patients with chronic non-specific low back pain compared to no intervention. Pilate's benefits in pain reduction were also found to be comparable to other forms of active therapies, such as stabilization exercises and McKenzie programs. However, it is unknown how long these effects will last as no post-intervention follow-ups were conducted.
Conclusions	The evidence suggests that Pilates is effective at reducing pain, disability and kinesiophobia in patients with chronic non-specific low back pain. However, these effects may be short-term due to lack of evidence for long-term effects. Pilates was found to be comparable to other active therapies but is not significantly more effective than them at reducing pain. But it is still more beneficial than with no intervention at all.
Implications for clinical practice	Clinicians should consider the use of Pilates for treatment of chronic non-specific low back pain in order to improve the outcomes of pain, mental health, and functional ability.

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2. Lin, H-T., Hung, W-C., Hung, J-L., Wu, P-S., Liaw, L-J. & Chang, J-H. (2016). Effects of pilates on patients with chronic non-specific low back pain: A systematic review, *Journal of Physical Therapy Science*, *28*(10), 2961–2969.
3. Brooks, C., Kennedy, S. & Marshall, P. W.M. (2012). Specific trunk and general exercise elicit similar changes in anticipatory postural adjustments in patients with chronic low back pain: A randomized controlled trial, *Spine*, *37*(25), E1543–E1550.
4. Cruz-Díaz, D., Romeu, M., Velasco-González, C., Martínez-Amat, A. & Hita-Contreras, F. (2018). The effectiveness of 12 weeks of pilates intervention on disability, pain and kinesiophobia in patients with chronic low back pain: A randomized controlled trial, *Clinical Rehabilitation*, *32*(9), 1249–1257.
5. Hasanpour-Dehkordi, A., Dehghani, A. & Solati, K. (2017). A comparison of the effects of pilates and McKenzie training on pain and general health in men with chronic low back pain: A randomized trial, *Indian Journal of Palliative Care*, *23*(1), 36–40.
6. Dsa, C.F., Rengaramanujam, K. & Kudchadkar, M.S. (2014). To assess the effect of modified pilates compared to conventional core stabilization exercises on pain and disability in chronic non-specific low back pain- randomized controlled trial, *Indian Journal of Physiotherapy and Occupational Therapy*, *8*(3), 202–207.
7. Wajswelner, H., Metcalf, B. & Bennell, K. (2012). Clinical pilates versus general exercise for chronic low back pain: Randomized trial, *Medicine and Science in Sports and Exercise*, *44*(7), 1197–1205.

This evidence summary has been prepared by undergraduate students as part of the HLTH 3057 Advanced Evidence Based Practice course. Due to limitations of assignment requirements reviews are limited to a maximum of 8 evidence sources. Conclusions and implications for clinical practice reported are provisional based on the evidence identified in this review and should be contextualized to local practice, clinical expertise and patient values. For further information on the review process please contact steve.milanese@unisa.edu.au