PEDro Newsletter 6 December 2021 View this email in your browser

Physiotherapy Evidence Database

A. PEDro update (6 December 2021)

PEDro contains 53,420 records. In the 6 December 2021 update you will find:

- 41,069 reports of randomised controlled trials (40,256 of these trials have confirmed ratings of methodological quality using the PEDro scale)
- 11,656 reports of systematic reviews, and
- 695 reports of evidence-based clinical practice guidelines.

For latest guidelines, reviews and trials in physiotherapy visit Evidence in your inbox.

B. DiTA update (6 December 2021)

DiTA contains 2,278 records. In the 6 December 2021 update you will find:

- 2,040 reports of primary studies, and
- 238 reports of systematic reviews.

For the latest primary studies and systematic reviews evaluating diagnostic tests in physiotherapy visit *Evidence in your inbox*.

C. More languages for the tenth video of PEDro Advanced Search for the

"You Ask #PEDroAnswers" campaign

Each month in 2021 we have shared short videos illustrating how to use the PEDro Advanced Search to find the best research to answer clinical questions submitted by PEDro users. We are re-posting the tenth video because it is now available in French and Portuguese (in addition to the English version posted in November).

The tenth video used the PEDro Advanced Search to find the best research to answer this clinical question: "In children with cerebral palsy, does functional and repetitive training of sit-to-stand reduce disability more than usual care?"

The Search terms ware:

- skill training (Therapy)
- cerebral palsy (Topic)
- stand* (Title Only).

PEDro acknowledges the contributions of: Ana Helena Salles from Faculdade de Ciências Médicas de Minas Gerais, Brazil who translated the Portuguese version; Giovanni Ferriera from the Institute for Musculoskeletal Health at the University of Sydney who recorded the Portuguese version; and, Céline Lesage, Sébastien Mateo and Matthieu Guemann from the <u>Société Française de Physiothérapie</u> who translated and recorded the French version.

You can watch all 10 search videos for the "You Ask #PEDroAnswers" campaign at https://pedro.org.au/english/learn/you-ask-pedro-answers/#part-2.



English



D. You Ask #PEDroAnswers campaign to enhance searching skills

An essential element of evidence-based practice is searching to find the best high-quality research to answer your clinical questions. Despite the importance of searching, just one in three physiotherapists perform a database search each month. Skill is an obstacle to searching. Physiotherapists may do more searching if they could increase their competency and efficiency.

PEDro provides easy access to over 53,000 articles evaluating the effects of physiotherapy interventions. Throughout 2021 we ran the You Ask #PEDroAnswers campaign to help physiotherapists to improve their searching skills using the PEDro Advanced Search. The campaign was supported by World Physiotherapy, the Australian Physiotherapy Association, the Asociación Española de Fisioterapeutas, Physio Deutschland, the Società Italiana Fisioterapia and the Société Française de Physiothérapie.

Each month we shared short videos illustrating how to use the PEDro Advanced Search to find high-quality research to answer clinical questions submitted by the global physiotherapy community. You can watch all 10 search videos at <u>https://pedro.org.au/english/learn/you-ask-pedro-answers/#part-2</u>.

Throughout 2021 we also shared 10 tips on how to use the PEDro Advanced Search:

- 1. ask a PICO question before you search
- 2. don't enter search terms for each element of the PICO question
- 3. use the PEDro Advanced Search (not Simple)
- 4. use wildcards (truncation)
- 5. use phrase searching
- 6. don't use Boolean operators
- 7. if you get too many search results ...
- 8. if you get too few search results ...
- 9. screen titles first, then look at abstracts
- 10. access full text using links in PEDro

You can find out more about these tips at <u>https://pedro.org.au/english/learn/you-ask-pedro-answers/#part-3</u>.

We hope the You Ask #PEDroAnswers campaign has helped you to develop your searching skills.

E. Infographic for Cochrane review that found that exercise reduces pain more than no treatment in adults with chronic non-specific low back pain

Last month we summarised the <u>Cochrane review by Hayden et al</u>. The review concluded that exercise therapy most likely reduces pain when compared to no treatment (including no or minimal treatment, usual care or placebo) in people with chronic non-specific low back pain. However, the impact of exercise therapy on functional limitations when compared to no treatment and on pain and functional limitations when compared to other conservative care are probably small.

Some suggestions for applying this evidence into practice are this infographic.





Hayden JA, et al. Exercise therapy for chronic low back pain. *Cochrane Database Syst Rev* 2021;Issue 9

Read more on PEDro.

F. Systematic review found that some types of exercise are more effective than others for adults with chronic low back pain

Guidelines recommend exercise as first line care for the treatment of chronic low back pain. <u>A Cochrane review summarised in a PEDro blog in November 2021</u> concluded that exercise therapy most likely reduces pain when compared to minimal treatment, but the impact of exercise therapy on functional limitations when compared to minimal treatment and on pain and functional limitations when compared to other conservative care are probably small. However, this Cochrane review did not investigate the effects of different types of exercise therapy compared to non-exercise controls nor do any head-to-head comparisons of different exercise therapies. This network meta-analysis aimed to estimate the effects of different exercise therapies on pain and function compared to nonexercise controls and to other types of exercise in adults with chronic low back pain.

Guided by a prospectively registered protocol, sensitive searches were performed in seven databases (including Cochrane CENTRAL, Medline and PEDro) and two trial registries to identify randomised controlled trials evaluating exercise therapy for adults with low back pain (date of most recent search: 7 December 2020). The patients were adults with nonspecific low back pain of at least 12 weeks duration. The intervention was any exercise therapy prescribed or planned by a health professional that involved conducting specific activities, postures and/or movements with a goal to improve low back pain outcomes. The type of exercise therapy was classified into 11 categories: general strengthening; stretching; core strengthening (or motor control); flexibility; aerobic; functional restoration; McKenzie therapy; Pilates; yoga; mixed; and, other. The comparators were non-exercise controls and a different category of exercise therapy. Non-exercise controls were classified as minimal treatment (no treatment, usual care, placebo, education, and ineffective interventions like electrotherapy) and other conservative treatment (psychological therapy, anti-inflammatory or analgesic medication, relaxation, manual therapy, physiotherapy not involving exercise, back school). The primary outcomes were pain intensity and functional limitations measured on any scale, and data were transformed to a 0-to-100-point scale (where 0 is no pain or functional limitation) for the analyses. A 15-point difference in pain and a 10-point difference in functional limitations were pre-specified to be clinically important. If outcomes were evaluated at multiple time points, data from the time point closest to 3 months post-randomisation were used in the primary analyses. Two independent reviewers selected trials for inclusion and evaluated trial quality, and disagreements were resolved by discussion or by arbitration from a third reviewer. Data were extracted by one reviewer and checked by at least one other reviewer. Trial quality was evaluated using the first version of the Cochrane risk of bias tool. The Confidence in Network Meta-Analysis (CINeMA) approach was used to evaluate certainty of evidence. Pair-wise meta-analyses and network meta-analysis was used to pool trials and calculate the mean between-group differences (and the associated 95% confidence intervals). The two non-exercise comparator categories (minimal treatment and other conservative treatment) and the 11 exercise categories were used as nodes in the network meta-analysis.

217 trials (20,969 participants) were included in the analyses. The average age of participants was 44 years, 56% were women and the average pain intensity at baseline was 51 on a 100-point scale. The 369 exercise groups were categorised as core strengthening (110 groups), mixed (96), general strengthening (44), aerobic (25), Pilates (24), stretching (17), other (15), yoga (13), functional restoration (10), McKenzie therapy (9), and flexibility (5). The 138 non-exercise comparison groups were categorised as minimal treatment (86 groups) and other conservative treatment (52).

All categories of exercise therapy reduced pain intensity (mean difference -19 to -7 points; low or moderate certainty) and functional limitations (-12 to -3; low to high) compared to minimal treatment. Pilates, McKenzie therapy, functional restoration, and core strengthening reduced pain (-11 to -6; low or moderate), and McKenzie therapy, flexibility,

Pilates and functional restoration reduced functional limitation (-7 to -3; moderate) compared to other conservative treatment.

Some types of exercise were more effective than others.

- Pilates exercise reduced pain more than all other exercise categories (mean difference -12 to -4 points; low or moderate certainty) and reduced functional limitations more than stretching, other, aerobic, mixed, general strengthening, yoga, core strengthening and functional restoration (-7 to -3; moderate).
- McKenzie therapy reduced pain more than stretching, aerobic, flexibility, yoga, mixed, other and general strengthening (mean difference -8 to -4; moderate certainty), and reduced functional limitations more than stretching, other, aerobic, mixed, general strengthening, yoga, core strengthening and functional restoration (-8 to -4; moderate).
- Functional restoration exercise reduced pain more than stretching, flexibility, aerobic, yoga, mixed and other (mean difference -8 to -4; low or moderate certainty), and reduced functional limitations more than stretching, other, aerobic, mixed and general strengthening (-4 to -2; moderate).
- Core strengthening exercise reduced pain more than stretching, aerobic, flexibility, yoga and mixed (mean difference -6 to -5; low certainty), and moderate certainty evidence that core strengthening exercise reduced functional limitations more than stretching, other, aerobic and mixed (-3 to -2; low).

Pilates, McKenzie therapy, functional restoration and core strengthening exercise therapies were more effective than other types of exercise therapy for reducing pain intensity and functional limitations. Nevertheless, people with chronic low back pain should be encouraged to perform the exercise that they enjoy in order to promote adherence.

For readers who are not familiar with network meta-analysis, we recommend reading a <u>research note on this topic</u> published in the *Journal of Physiotherapy*.

Hayden JA, et al. Some types of exercise are more effective than others in people with chronic low back pain: a network meta-analysis. *J Physiother* 2021;67(4):252-62

Read more on PEDro.

G. Support for PEDro comes from the Chartered Society of Physiotherapy

We thank the <u>Chartered Society of Physiotherapy</u> who have just renewed their partnership with PEDro for another year.

H. Next PEDro and DiTA updates (February 2022)

The next PEDro and DITA updates are on Monday 7 February 2022.

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