PEDro Newsletter 7 March 2022 View this email in your browser

Physiotherapy Evidence Database

A. PEDro update (7 March 2022)

PEDro contains 54,098 records. In the 7 March 2022 update you will find:

- 41,559 reports of randomised controlled trials (40,933 of these trials have confirmed ratings of methodological quality using the PEDro scale)
- 11,836 reports of systematic reviews, and
- 703 reports of evidence-based clinical practice guidelines.

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

B. DiTA update (7 March 2022)

DiTA contains 2,333 records. In the 7 March 2022 update you will find:

- 2,090 reports of primary studies, and
- 243 reports of systematic reviews.

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

C. PEDro now contains 54,000+ reports of trials, reviews and guidelines

We are pleased to announce that PEDro has just achieved a new milestone. There are now 54,000+ reports of trials, reviews and guidelines indexed on PEDro.



D. PEDro social media highlights from 2021

We found the five social media posts that PEDro users most engaged with in 2021. In case you missed them, we provide a brief description and links to the original posts below.

- First short video of PEDro Advanced Search for the "You Ask #PEDroAnswers" <u>campaign</u>. This video answered "In older people living at home, does telephone motivational interviewing with a physiotherapist increase physical activity compared to providing written advice"
- <u>Third video of PEDro Advanced Search for the "You Ask #PEDroAnswers"</u> <u>campaign</u>. This video answered "In people with a cervical disc herniation, does computerised traction reduce pain more than exercise therapy?"
- 3. <u>Infographic for systematic review that found exercise prehabilitation increases</u> preoperative functional capacity and decreases postoperative hospital length of stay in people undergoing surgery for abdominal cancer.

- 4. <u>PEDro celebrates World PT Day on 8 September 2021</u>. This post highlighted some evidence-based resources for the physiotherapy management of long COVID.
- Meet the people behind PEDro. This post introduced the new members of the PEDro Steering Committee.

E. Systematic review found that behavioural strategies combined with self-directed exercise programs increase adherence with physical activity in women who had breast cancer

Breast cancer is the leading cause of cancer morbidity and mortality in women globally. Self-directed physical activity or exercise programs are associated with positive breast cancer outcomes. Behavioural strategies that can increase adherence with these programs include self-monitoring by using a step tracking device and motivational interviewing. This systematic review aimed to estimate the effect of different behavioural strategies to improve adherence to self-directed physical activity or exercise programs in women who had non-metastatic breast cancer.

Guided by a prospectively registered protocol, sensitive searches were performed in six databases (including PubMed and Cochrane CENTRAL) to identify randomised controlled trials evaluating self-directed physical activity or exercise programs in women with nonmetastatic breast cancer. Participants must have completed surgery, chemotherapy, and radiotherapy treatments for stage 0 to III breast cancer at least 3 months prior to recruitment. The intervention was any form of self-directed physical activity or exercise program (ie, at least half the program was implemented without supervision from a health professional). Behavioural strategies used in the programs were classified as step tracking and counselling, step tracking and motivational interviewing, and step tracking and printed material. The comparator was usual care. The primary outcome was adherence at the end of follow-up measured as a dichotomous (percentage achieving an exercise volume recommendation - full or partial adherence with the program or a physical activity recommendation) or continuous (measures of exercise duration, intensity, or step count) variable. Two reviewers independently selected trials for inclusion, with any disagreements resolved by a third reviewer. Data were extracted by one reviewer and verified by up to two other reviewers. Two reviewers evaluated risk of bias using the Cochrane risk of bias tool, with any disagreements resolved by discussion. Certainty of evidence was not evaluated. Meta-analysis was used to pool the included trials, using odds ratios and 95% confidence intervals (CI) for dichotomous variables, and standardised mean difference and 95% CIs for continuous variables. Trials in the meta-analysis were grouped according to the behavioural strategies used: step tracking and counselling, step tracking and motivational interviewing, and step tracking and printed material.

Ten trials (1,334 participants) with a follow-up of between 12 weeks and 6 months were included in the meta-analyses. The mean age of women in the trials was 50-62 years. Four trials used step tracking and counselling, two used step tracking and motivational interviewing, and four used step tracking and printed material, in conjunction with a self-directed physical activity or exercise program. Comparator groups received usual care, waitlist control or step tracking.

More participants achieved a physical activity recommendation in groups receiving behavioural strategies in combination with self-directed exercise (218/474, 46%) than in control conditions (152/477, 32%), with an odds ratio 2.66 (95% Cl 1.34 to 5.27; 6 trials; 951 participants). This effect was slightly larger for step tracking and counselling (odds ratio 7.10; 95% Cl 1.13 to 44.75; 3 trials; 373 participants) and step tracking and motivational interviewing (odds ratio 5.95; 95% Cl 2.29 to 15.44; 1 trial; 87 participants) than for step tracking and printed material (odds ratio 1.24; 95% Cl 0.72 to 2.13; 2 trials; 491 participants). The outcomes of full or partial adherence with the program were not reported.

Participants in groups receiving behavioural strategies in combination with self-directed exercise achieved 0.55 standard deviations more moderate to vigorous physical activity than those in control conditions (95% CI 0.30 to 0.79; 9 trials; 1,262 participants). This effect was consistent across the step tracking and counselling (standardised mean difference 0.70; 95% CI 0.14 to 1.25; 4 trials; 435 participants), step tracking and motivational interviewing (standardised mean difference 0.70; 95% CI 0.39 to 1.01; 2 trials; 167 participants), and step tracking and printed material (standardised mean difference 0.32; 95% CI 0.07 to 0.57; 3 trials; 660 participants) subgroups.

When combined with a self-directed physical activity or exercise program, the behavioural strategies of step tracking with counselling, motivational interviewing or printed material appear to increase adherence with physical activity in women who had non-metastatic breast cancer.

Pudkasam S, et al. Motivational strategies to improve adherence to physical activity in breast cancer survivors: a systematic review and meta-analysis. *Maturitas* 2021;152:32-47

Read more on PEDro.

F. Rachael Cowan and co-authors publish their #WorldPhysio2021 prize-winning trial of treatments for greater trochanteric pain syndrome

In a PEDro blog in April 2021 we highlighted that Rachael Cowan and her co-authors had won the <u>PEDro prize for the best trial presented at the World Physiotherapy Congress</u>

<u>2021</u>. This factorial randomised trial sought to determine the effect of exercise plus education and the effect of menopausal hormone therapy on tendon pain and function in postmenopausal women with greater trochanteric pain syndrome. The trial has now been published in The American Journal of Sports Medicine, and we summarise the results in this blog.

Greater trochanteric pain syndrome is prevalent in women, particularly those who are postmenopausal. Several sources of evidence suggest that raising oestrogen levels may lead to better tendon health, especially when combined with exercise. Another effective regimen for greater trochanteric pain syndrome is exercise plus education; the type of exercise does not seem to matter much but load management and avoidance of gluteal tendon compression may be important. The aim of the trial by Cowan et al was to determine the effects of exercise and of menopausal hormone therapy, in combination and isolation, on tendon pain and function in post-menopausal women with greater trochanteric pain syndrome.

Post-menopausal women with greater trochanteric pain syndrome were recruited through health care professionals, community noticeboards, fitness centres and (social) media. To be eligible, they needed to report lateral hip pain with at least two of the following activities: lying on the affected side, sitting, moving from sitting to standing, and ascending/descending stairs or slope. Physiotherapists gave all participants education, which covered how to avoid compression of the gluteal tendon, load management during activities of daily living and exercise.

In the trial's factorial design, participants were randomised to receive hormonal therapy or placebo, and were also randomised to receive an exercise regimen or sham. The hormone therapy cream dosage equated to the estradiol and norethindrone/norethisterone acetate dose in commercial transdermal patches. The exercise consisted of twice-daily 15-minute sessions that included gluteus medius, quadriceps and calf strengthening exercises with gluteal tendon loading and weightbearing kinetic chain strengthening. The sham exercise regimen was a low-load lower limb exercise program. The regimens continued for 12 weeks.

Outcomes (blinded where possible) were assessed at 12 weeks and 52 weeks after randomisation. The primary outcome measure was the 0-to-100 VISA-G measure of the severity of disability from greater trochanteric pain syndrome. Secondary measures included the Oxford Hip Score, the Hip Disability and Osteoarthritis Outcome Score, the Assessment of Quality of Life-8D and a global rating of change.

VISA-G scores improved in all groups, with no interaction effects between combinations of hormone therapy and exercise. The secondary outcomes also did not demonstrate any clear differences between these interventions, alone or in combination. However, among women with a body mass index in the normal or underweight range, hormone therapy did

induce better VISA-G scores by a mean of 21 points (95% CI 10 to 31) at 12 weeks and by a mean of 17 points (95% CI 6 to 27) at 52 weeks, regardless of whether the exercise or sham exercise had been allocated. Similarly, among women in this weight range, hormone therapy also induced better results on several of the secondary outcome measures, when added to the education given to all groups and whichever exercise had been allocated.

Cowan RM, et al. Does menopausal hormone therapy, exercise, or both improve pain and function in postmenopausal women with greater trochanteric pain syndrome? A 2x2 factorial randomized clinical trial. *Am J Sports Med* 2021 Dec 13:Epub ahead of print.

Read more on PEDro.

G. Free full text access is available for about 60% of articles indexed in PEDro

Access to full-text copies of research articles is an essential element of evidence-based practice. Physiotherapists read the full-text articles to appraise the quality and applicability of the research before applying the results in practice. However, because the content of some journals can only be accessed with a subscription or payment per article, cost may be a barrier to acquiring full-text articles.

Research articles are being increasingly published in open-access journals. This shift from toll access is due to factors including the public access policies of funding agencies that require investigators to make the results of their funded research freely available, the progressive policies of some journals, and the perceived open-access citation advantage.

A recent descriptive study estimated the percentage of articles in the Physiotherapy Evidence Database (PEDro) that have free full-text access and compare free access between PEDro and PubMed. Secondary objectives were to: determine if publication year and geographic location have an impact on free access; determine if adding a link to a portable document format (PDF) locator website would improve free access; and evaluate the association between article characteristics and free access.

The study used a random sample of 200 articles published between 2000 and 2019 that were indexed in PEDro. Data collectors in Australia, Brazil, Nepal and Spain attempted to access free full text for each article from at least one of the links provided in the PEDro resource. One data collector attempted to access free full text from at least one of the links provided in PubMed. One data collector attempted to access full text via a <u>PDF locator</u> <u>website</u>. The percentage (95% confidence interval (CI)) of articles with free full-text access from PEDro, PubMed and the PDF locator website were calculated. Logistic regression was used to evaluate the association between free full-text access and article

characteristics.

Free full text could be accessed for 51% of the articles (95% CI 44 to 58) via PEDro and for 47% (95% CI 40 to 54) of articles via PubMed. PEDro had 4% higher free access than PubMed (95% CI 1 to 7). Access via PEDro did not vary systematically with time, geographic location, or article characteristics. Access to free full text via PEDro could be expanded by 9% (95% CI 6 to 14) by adding a link to the PDF locator website.

PEDro is a good source of free full-text articles for physiotherapists. From anywhere in the world, physiotherapists with no institutional access to a medical library can access free full text for about half the articles indexed in PEDro using the links provided in the PEDro Detailed Search Results page.

Since this study was conducted, a link to the PDF locator website has been added to the PEDro Detailed Search Results page. This means that free full-text access via PEDro is likely to be available for 60% of articles (95% CI 53 to 67) based on the study data.

More information about accessing full-text articles via PEDro is available in a recent blog.

Moseley AM, et al. The Physiotherapy Evidence Database (PEDro) has better free full-text access than PubMed: an observational study. *Braz J Phys Ther* 2022;26(1):100392.

H. Support for PEDro comes from industry, physiotherapy

organisations and individuals

Support for PEDro comes from industry partners around the globe. The Australian Physiotherapy Association is our Foundation Partner. The Motor Accident Insurance Commission, Chartered Society of Physiotherapy and American Physical Therapy Association are Partners. Our Association Partners for 2021 were World Physiotherapy Member Organisations from 38 countries.

We also thank the individual physiotherapists who have made a donation to PEDro during 2021.

But PEDro is facing significant financial challenges. We need more partners to help us continue the work we do and keep PEDro free and accessible around the world. From private practices to hospitals, government departments and universities, we can tailor a sponsorship package to suit any organisation. If your organisation would like to invest in the future of physiotherapy, please contact us via <u>pedro.org.au/english/about/contact-details/</u>.

Another way we can pay for PEDro and keep it free is through <u>donations from users</u>. You can choose an amount that suits your budget. We truly appreciate your help.

I. Next PEDro and DiTA updates (April 2022)

The next PEDro and DiTA updates are on Monday 4 April 2022.



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