PEDro Newsletter 6 June 2022

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PEDro

Physiotherapy Evidence Database

A. PEDro update (6 June 2022)

PEDro contains 55,280 records. In the 6 June 2022 update you will find:

- 42,272 Reports of randomised controlled trials (41,423 of these trials have confirmed ratings of methodological quality using the PEDro scale)
- 12,293 reports of systematic reviews, and
- 715 reports of evidence-based clinical practice guidelines.

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

B. DiTA update (6 June 2022)

DiTA contains 2,359 records. In the 6 June 2022 update you will find:

- 2,111 reports of primary studies, and
- 248 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 55,000+ reports of trials, reviews and guidelines

We are pleased to announce that PEDro has just achieved a new milestone. There are now 55,000+ reports of trials, reviews and guidelines indexed on PEDro.

D. #PEDroTacklesBarriers to evidence-based physiotherapy: Lack of time

Lack of time is the most common barrier to evidence-based physiotherapy. Many factors contribute to this, including a high workload, competing priorities, efficiency in all 5 steps of evidence-based physiotherapy (Ask, Acquire, Appraise, Apply, Assess), lacking resources, lacking confidence, and being overwhelmed by the amount of evidence and the process of changing practice.

Ten clinicians share some strategies they use to tackle the barrier of lack of time in the #PEDroTacklesBarriers to evidence-based physiotherapy campaign.

Nosipho Zumana Mtotoba

Mafikeng Provincial Hospital, South Africa

Nosipho emphasises quality over quantity. She says that "everybody in life does not have time, but we try to accommodate and do what we can within the time that we are given."

Kate Scrivener

Concentric Rehabilitation Centre, Australia

A key strategy to tackle the time barrier suggested by Kate is to use synthesised research. Kate says "guidelines provide the most important evidence for clinical practice" and that

“systematic reviews have the potential to be strong enough to change what we do in clinical practice.”

Nicolas Draheim

Movement Solutions, Australia

Nick suggests making evidence part of your staff meetings by “identifying areas that the team need to develop knowledge and skills in and task staff with bringing relevant high-quality clinical research to the meeting”.

Michele Marelli

Università degli Studi del Molise, Italy

Michele dedicates time to reading new articles. He says that “specialising in specific fields in musculoskeletal care” has also helped him tackle the time barrier.

Daniel Treacy

South Eastern Sydney Local Health District, Australia

Daniel suggests a journal club that is focused on a practice or question over a period of time will facilitate implementation. Daniel emphasises “that, in addition to reading relevant research, journal clubs should include planning and testing how the new practices are implemented in the clinic’s busy work schedule.”

Nehal Shah

Bhopal Memorial Hospital and Research Centre, Bhopal, India

Being in a routine of reading articles has made Nehal more efficient. Every morning she puts an article in her pocket so that it is on hand when she has some spare time.

Govinda Nepal

Kathmandu University Hospital, Nepal

Like many physiotherapists, Govinda has a long commute to work. He uses this travel time to read high-quality research.

Yvette Black

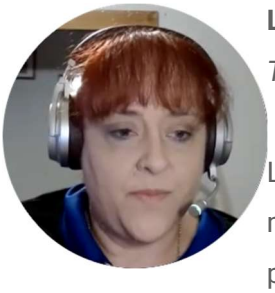
Bloomfield Hospital, Orange Health Service, Australia

A mentor once said to Yvette “it’s not that you don’t have time, you need to reframe it and make time.” She suggests using your diary to make considering evidence a normal part of your routine.

Sean Kaplan

Home visiting physiotherapist, South Africa

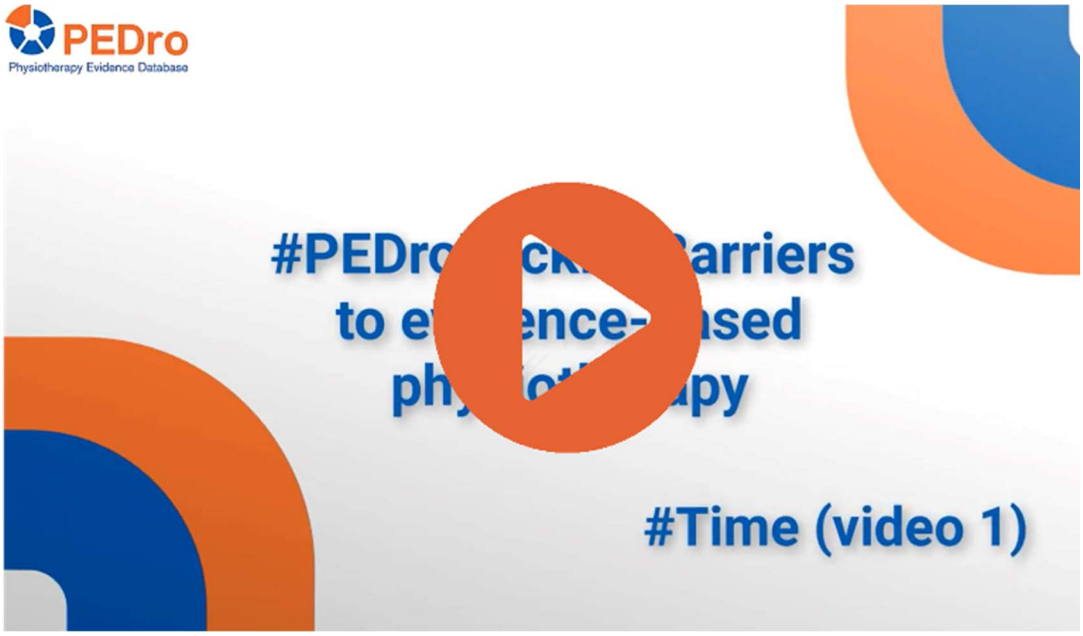
Sean seeks to “know what you don’t know.” You can collaborate with colleagues or friends to take action on this using relevant evidence.



Laura Crowe-Owen

Therapy for Life, Australia

Laura provides some great tips for the strategic use of social media. Suggestions include “following researchers who produce meaningful articles, rather than the loudest person in the room, and always read the articles.”



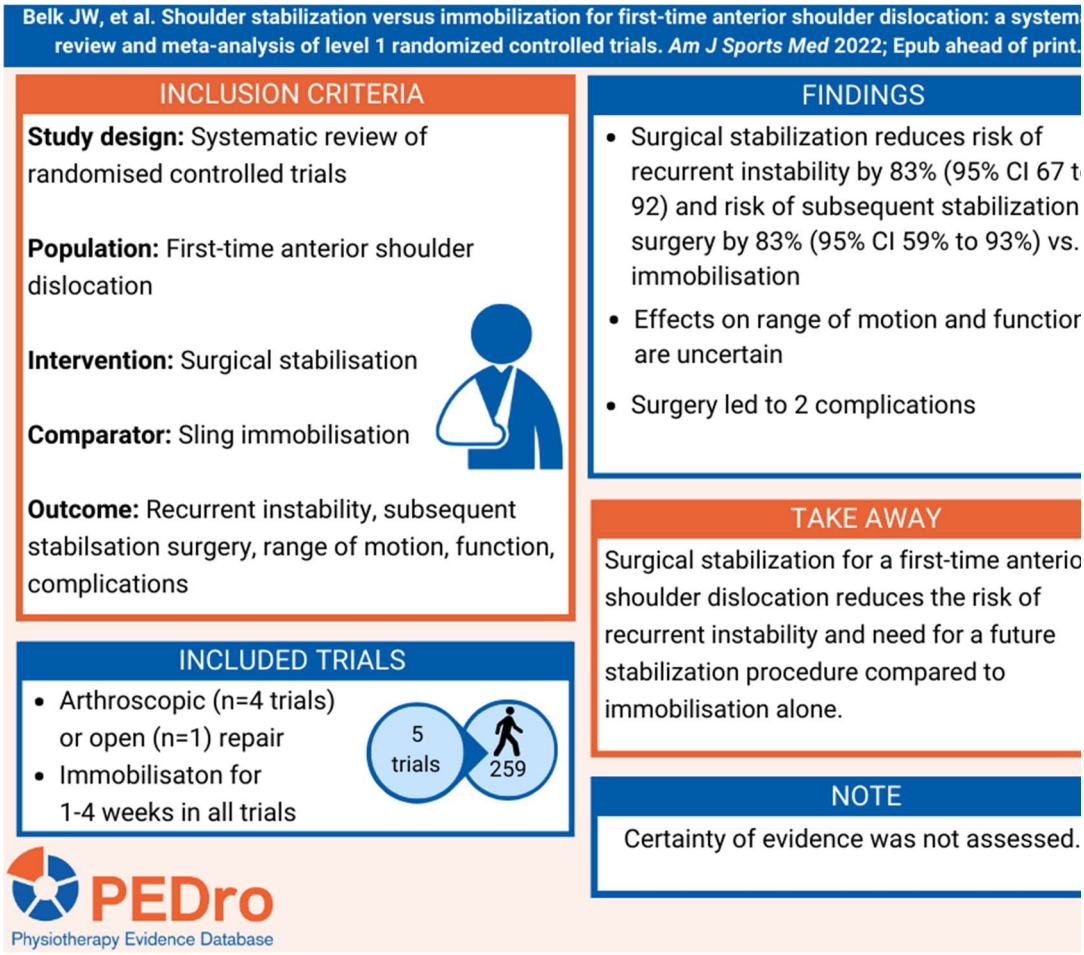
More strategies to tackle the barrier of time will be released in July 2022.

Please join us in the 'PEDroTacklesBarriers to evidence-based physiotherapy' campaign to help tackle the biggest barriers to evidence-based physiotherapy. You can follow the campaign via the PEDro website, blog, Twitter or Facebook.

E. Infographic for systematic review found that surgical stabilisation for a first-time anterior shoulder dislocation reduces the risk of recurrent instability and need for future surgery compared to sling immobilisation

Last month we summarised the systematic review by Belk et al. The review concluded that surgical stabilisation for a first-time anterior shoulder dislocation reduces the risk of recurrent instability and need for future surgery compared to sling immobilisation. But it is uncertain whether surgical stabilisation is superior to non-operative management for improving shoulder function and range of motion.

Some findings are included in this infographic.



Belk JW, et al. Shoulder stabilization versus immobilization for first-time anterior shoulder dislocation: a systematic review and meta-analysis of level 1 randomized controlled trials. *Am J Sports Med* 2022 Feb 11:Epub ahead of print.

Read more on PEDro.

F. Systematic review found that exercise interventions improve muscle quality in older adults

Muscle quality maintenance or improvement is important for older adults to preserve or enhance physical function and metabolic health. There is conflicting evidence on whether exercise interventions improve morphological muscle quality (structure) and

neuromuscular muscle quality (strength) in older adults. Further it is unclear which characteristics of exercise and for which populations, lead to greatest change in muscle quality. This systematic review aimed to estimate the effects of exercise interventions compared to non-active control on muscle quality in older adults.

A protocol that was specified a priori guided the methods. Sensitive searches performed in six databases, three grey literature databases, and citation tracking were used to identify randomised controlled trials that were published in English, Portuguese or Spanish. Participants were older adults (≥60 years) without a chronic condition. Interventions were supervised or unsupervised exercise interventions combined or not with nutritional programs. The comparators were mostly non-active interventions, but also included light physical activity (stretching or walking) or an educational control. The primary outcomes were morphological and neuromuscular muscle quality outcomes of the lower limb.

Two independent reviewers selected trials for inclusion, evaluated risk of bias and extracted data. Any disagreements were resolved by consensus discussions or by a third reviewer. Risk of bias was evaluated using the Cochrane risk of bias tool. Certainty of evidence was not evaluated. Meta-analysis was used to pool the included trials to calculate standardised mean differences and 95% confidence intervals (CI). Six subgroup analyses were conducted when data was available; (1) older adults subgroups (e.g., physically healthy, obese, mobility-limited, sarcopenic, frail); (2) exercise delivery modes (e.g., supervised vs. unsupervised exercise programs); (3) intervention modalities (e.g., resistance exercise, aerobic exercise, combined resistance and aerobic exercise, water-based exercise prescription, exercise plus nutritional supplementation); (4) outcomes assessment (e.g., muscle echo intensity, intermuscular adipose tissue); (5) thigh versus calf muscle outcomes (or knee extensors vs. plantar flexors); and (6) based on risk of bias assessment.

21 trials (973 participants) were included in the meta-analyses. Participants had a median age of 70 years (IQR 67-75), were women (n=651, 67%), had a BMI of 27.5 kg/m2 (IQR 25.5–28.4). Most trials (n=15, 71%) included physically healthy older adults and compared to non-active intervention groups (n=12, 57%). Compared to control, participants in the exercise groups had a small improvement in

morphological muscle quality (SMD 0.32; 95% CI 0.13 to 0.51; 10 trials; 387 participants) at follow-up. Compared to control, participants in the exercise groups had a small improvement in neuromuscular muscle quality (SMD 0.49; 95% CI 0.29 to 0.69; 13 trials; 482 participants) at follow-up. Both results varied when investigated in subgroup analyses.

Exercise interventions provide small improvements in both morphological and neuromuscular muscle quality compared to control. It is unclear whether these improvements in muscle quality translate to meaningful changes in patient relevant outcomes.

Read more on PEDro.

Radaelli, R., Taaffe, D.R., Newton, R.U. et al. Exercise effects on muscle quality in older adults: a systematic review and meta-analysis. *Sci Rep* 11, 21085 (2021). https://doi.org/10.1038/s41598-021-00600-3

G. You Ask #PEDroAnswers campaign helps physiotherapists improve their skills in searching for high-quality research

Evidence-based practice enables optimal patient care through the application of high-quality research. Searching for high-quality research to answer clinical questions is a fundamental skill in the implementation of evidence-based physiotherapy. In 2021 PEDro ran a campaign called “You Ask #PEDroAnswers” to help physiotherapists around the globe improve their searching skills using the PEDro Advanced Search. The campaign asked physiotherapy clinicians and students worldwide to submit their clinical questions via social media and the PEDro website. Each month the PEDro campaign team selected a question and produced a video demonstrating the best search strategy using PEDro’s Advanced Search. The campaign also included tips on how to use the Advanced Search.

A recent editorial published in the *European Rehabilitation Journal* discusses the

impact of the “You Ask #PEDroAnswers” campaign and the important contribution that the Société Française de Physiothérapie made to the campaign.

The Société Française de Physiothérapie participated in the “You Ask #PEDroAnswers” campaign to help promote the use of PEDro to French-speaking students and physiotherapists who may have not been familiar with the PEDro resource. Two Société Française de Physiothérapie members translated the campaign content from English to French, and one of the pair recorded the audio for the campaign videos. Throughout the campaign videos were released in English, French, Portuguese and Turkish.

The “You Ask #PEDroAnswers” campaign ran from January to December 2021 across the PEDro blog, Facebook pages, Twitter pages, and YouTube channel. Content shared on these platforms included102 posts and 30 videos demonstrating the best search strategy to answer submitted clinical questions, 60 posts and 8 videos with tips on searching and using the Advanced Search, 68 posts encouraging PEDro users to submit their clinical questions, and 6 posts summarising the campaign content. Campaign content had 5,674 page views on the PEDro blog and webpage, and 26,400 video views on YouTube and Facebook. The campaign reached 107,851 Twitter users and 29,321 Facebook users with 954 engagements on Facebook and 1,484 engagements on Twitter.

Lacking the skills to perform database searches for high-quality research is just one barrier to implementing evidence-based practice in physiotherapy. PEDro’s next campaign aims to tackle the four biggest barriers to evidence-based physiotherapy (time, language, lack of access and lack of statistical skills). The campaign #PEDroTacklesBarriers to evidence-based physiotherapy commenced in May 2022. Learn more: https://pedro.org.au/english/learn/pedrotacklesbarriers/

West CA, Guemann M, Ilhan E. You Ask #PEDroAnswers, a global social media campaign to help physiotherapists improve their searching skills to find high-quality evidence. *Eur Rehab J* 2022;2(1):18.

H. Support for PEDro comes from the following global physiotherapy organisations

Thank you to Suomen Fysioterapeutit, Taiwan Physical Therapy Association, Società Italiana di Fisioterapia, Félag Sjúkraþjálfara, Hong Kong Physiotherapy Association, Singapore Physiotherapy Association, Deutscher Verband für Physiotherapie, Fysioterapeuterna, Norsk Fysioterapeutforbund, Physio Austria, UNIFY ČR, Deutsche Gesellschaft für Physiotherapiewissenschaft who have just renewed their partnership with PEDro for another year.

I. Next PEDro and DiTA updates (July 2022)

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

Proudly supported by

AUSTRALIAN PHYSIOTHERAPY ASSOCIATION

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