PEDro Newsletter 4 July 2022 View this email in your browser

# Physiotherapy Evidence Database

## A. PEDro update (4 July 2022)

PEDro contains 55,567 records. In the 4 July 2022 update you will find:

- 42,493 Reports of randomised controlled trials (41,641 of these trials have confirmed ratings of methodological quality using the PEDro scale)
- 12,353 reports of systematic reviews, and
- 721 reports of evidence-based clinical practice guidelines.

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

## B. DiTA update (4 July 2022)

DITA contains 2,366 records. In the 4 July 2022 update you will find:

- 2,117 reports of primary studies, and
- 249 reports of systematic reviews.

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

# C. Support for PEDro comes from the following global physiotherapy organisations

Thank you to Canadian Physiotherapy Association, Združenje Fizioterapevtov

<u>Slovenije</u>, <u>Associação Portuguesa de Fisioterapeutas</u>, <u>Associação Espanola de</u> <u>Fisioterapeutas</u>, <u>Physiotherapeuten-Verband Liechtenstein</u> who have just renewed their partnership with PEDro for another year.

# D. #PEDroTacklesBarriers to evidence-based physiotherapy: more on 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 (<u>Ask, Acquire, Appraise, Apply, Assess</u>), lacking resources, lacking confidence, and being overwhelmed by the amount of evidence and the process of changing practice.

Last month ten clinicians shared some strategies they use to overcome the barrier of lack <u>of time</u>. This month seven more clinicians talk about how they tackle the time barrier for the #PEDroTacklesBarriers to evidence-based physiotherapy campaign.





#### John Tan

Singapore General Hospital, Singapore

John recommends finding like-minded colleagues that spur you on to help tackle the time barrier. He says "it is important to stay curious and committed plus develop the habit of inquiry".











#### Fairuz Boujibar

Rouen University Hospital, France Fairuz thinks that spending 30 minutes per day thinking about evidence is within reach of many physiotherapists. She says "having physiotherapy students in your department is an opportunity for mutual learning".

#### Francesco Ferrarello

Azienda Usl Toscana Centro, Italy Francesco suggests that "Reading regularly will make it easier and increase confidence". If you are new to reading research, start by reading one relevant article per month.

#### **Alison Hoens**

University of British Columbia, Canada Alison is a Physical Therapy Knowledge Broker, a position partly funded by the Physiotherapy Association of British Columbia. She says "get involved in your professional association in order to access resources and meet people who are deeply engaged".

#### **Ruth Chua**

Singapore General Hospital, Singapore Ruth reminds us that evidence-based practice will help ensure that treatment is effective and will benefit your patients. Ruth says that "enrolling in a residency program provides lots of opportunities for implementing evidence into practice".

#### Matt Jennings

South Western Sydney Local Health District, Australia Matt provides some system-level guidance to use the time you do have to make a difference. He says that "the culture around time is really important, what you prioritise and how you support teams to provide the best care is critical".



#### Harriet Shannon

University College London, United Kingdom Harriet thinks that team ethos is critical for making time available. She says "it starts with a team decision that we are going to be the change makers who are going to implement evidence-based practice".

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 <u>PEDro website</u>, <u>blog</u>, <u>Twitter</u> or <u>Facebook</u>.

## E. PEDro's World-Wide Journal Club on decreasing frailty in older people is

#### now available

Welcome to the PEDro World-Wide Journal Club. The purpose of the PEDro World-Wide Journal Club is to encourage the global physiotherapy community to read trials, reviews and guidelines that have important implications for clinical practice. We hope that facilitating discussion of this research will help physiotherapists to implement the results into their clinical practice.

Journal clubs are a great way to translate research into practice. In March 2020 PEDro published a blog that outlined some key features of running a successful journal club. Since then, PEDro has run four journal clubs which have been well received. The idea is for physiotherapists to use resources provided by PEDro as the basis for running a local journal club with their peers.

The first PEDro World-Wide Journal Club for 2022 is about the effect of a frailty intervention on risk factors for falls and fall rate in frail older people. We will be discussing the randomised controlled trial by Fairhall et al. We encourage physiotherapists with an interest in gerontology to participate in a five-step process:

- 1. invite your colleagues to be involved
- 2. read the article
- 3. <u>watch (or listen to)</u> the video summarising the effect of a frailty intervention on risk factors for falls and fall rate in frail older people trial
- 4. <u>watch (or listen to)</u> the video of the panel discussing the effect of a frailty intervention on risk factors for falls and fall rate in frail older people
- 5. meet with your colleagues to have your own discussion about the effect of a frailty intervention on risk factors for falls and fall rate in frail older people trial.

If you are interested in being involved, <u>please visit the PEDro web-site for more</u> <u>information</u>.

# F. Infographic for systematic review found that exercise interventions improve muscle quality in older adults

Last month we summarised the <u>systematic review by Radaelli R et al</u>. The review concluded that exercise interventions provide small improvements in both morphological and neuromuscular muscle quality compared to control.

Some findings are included in this infographic.



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).

Read more on PEDro.

# G. Systematic review found that exercise training for colorectal cancer survivors during chemotherapy reduces cancer-related fatigue

Colorectal cancer is the third most commonly diagnosed cancer worldwide. Up to half of colorectal cancer survivors report cancer-related fatigue, a debilitating and often long-term symptom impacting health-related quality of life and activity participation. Exercise training is recommended in clinical guidelines for the management of cancer-related fatigue, but the evidence is largely from studies involving people with breast cancer or where exercise has been combined with other interventions, such as nutrition counselling. This review aimed to estimate the effects of exercise training compared to non-exercise training usual care on cancer-related fatigue in survivors of colorectal cancer, during chemotherapy and following completion of treatment.

The protocol was prospectively registered. Five databases (including PEDro and PubMed) were searched for randomised controlled trials published in English. Participants were adult colorectal cancer survivors (with survivorship defined as commencing from the time of diagnosis). The intervention was exercise training alone, defined as structured physical activity to improve or maintain physical condition. The comparator was no exercise training. Self-reported fatigue intensity was the outcome of interest. Two independent reviewers selected trials for inclusion, evaluated risk of bias and extracted data. Any disagreements were resolved by a third reviewer. Risk of bias was evaluated using the PEDro scale. Certainty of evidence was rated using the Grades of Recommendation, Assessment, Development and Evaluation (GRADE) approach. A meta-analysis pooled the included trials to calculate standardised mean differences, 95% confidence intervals (CI) and 95% prediction intervals (PI) to estimate the interval within which a future treatment effect would fall. One subgroup analysis was planned to compare differences in participants receiving chemotherapy compared to participants who were post-treatment.

Six trials, involving 330 participants were included (n=170 intervention, n=160 usual care). All participants had stage I-III (non-metastatic) disease. Three trials (n=156) were conducted after treatment, two during adjuvant chemotherapy (n=120) and one predominantly after treatment (n=54 of which 3.7% were receiving chemotherapy). Two trials included aerobic exercise alone, two aerobic and resistance, one trial Hatha yoga (slow pace with breathing control and stretching) and one Baduanjin Qigong (physical postures and movements, combined with mind and breathing exercises). Exercise was home-based in three trials. The program frequency ranged from 1-7 days/week and the duration was between 10-24 weeks.

Four different questionnaires were used to report cancer-related fatigue intensity meaning results were combined as standardised mean differences (SMD) and 95% confidence intervals (CI). On average, participants in the exercise training group reported reduced cancer-related fatigue compared to participants who received non-exercise training usual

care (SMD=-0.29, 95% CI -0.53 to -0.06; prediction interval=-0.63; 0.04). Evidence was rated as low quality due to high risk of bias and inconsistency. Subgroup analysis showed effects during chemotherapy were moderate-large (SMD=-0.63, 95% CI -1.06 to -0.21, n=120), whereas effects were uncertain in the post-treatment phase (SMD=-0.14, 95% CI - 0.43 to 0.14; prediction interval=-0.76 to 0.47, n=180). Adverse events were not reported.

Exercise training for colorectal cancer survivors during chemotherapy reduces cancerrelated fatigue compared to non-exercise training usual care, although the quality of available evidence was low. Further evidence is required regarding the effects of exercise training on cancer-related fatigue in the post-treatment phase.

Machado P, Morgado M, Raposo J, Mendes M, Silva CG, Morais N. Effectiveness of exercise training on cancer-related fatigue in colorectal cancer survivors: a systematic review and meta-analysis of randomized controlled trials. *Support Care Cancer*. 2022 Jul;30(7):5601-5613. doi: 10.1007/s00520-022-06856-3. Epub 2022 Feb 2.

Read more on PEDro.

#### H. Next PEDro and DiTA updates (August 2022)

The next PEDro and DiTA updates are on Monday 1 August 2022.



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