PEDro Newsletter 1 March 2021

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PEDro

Physiotherapy Evidence Database

A. PEDro update (1 March 2021)

PEDro contains 49,927 records. In the 1 March 2021 update you will find:

- 38,630 reports of randomised controlled trials (37,897 of these trials have confirmed ratings of methodological quality using the PEDro scale)
- 10,605 reports of systematic reviews, and
- 692 reports of evidence-based clinical practice guidelines.

PEDro was updated on 1 March 2021. For latest guidelines, reviews and trials in physiotherapy visit *Evidence in your inbox*.

B. DiTA update (1 March 2021)

DiTA contains 2,037 records. In the 1 March 2021 update you will find:

- 1,836 reports of primary studies, and
- 201 reports of systematic reviews.

DiTA was updated on 1 March 2021. For the latest primary studies and systematic reviews evaluating diagnostic tests in physiotherapy visit *Evidence in your inbox*.

C. Call for expressions of interest for positions on the PEDro Steering Committee

PEDro and DiTA are managed by a Steering Committee that works with an Advisory Committee. Collectively, these groups are known as the PEDro Partnership. The primary roles of the PEDro Partnership are to facilitate evidence-based physiotherapy by ensuring ongoing open access to PEDro and DiTA, and to promote and support the widespread and efficient use of PEDro and DiTA. The Steering Committee provides high-level leadership, direction, and monitoring for all activities and initiatives of the PEDro Partnership. Membership on the Steering Committee is voluntary.

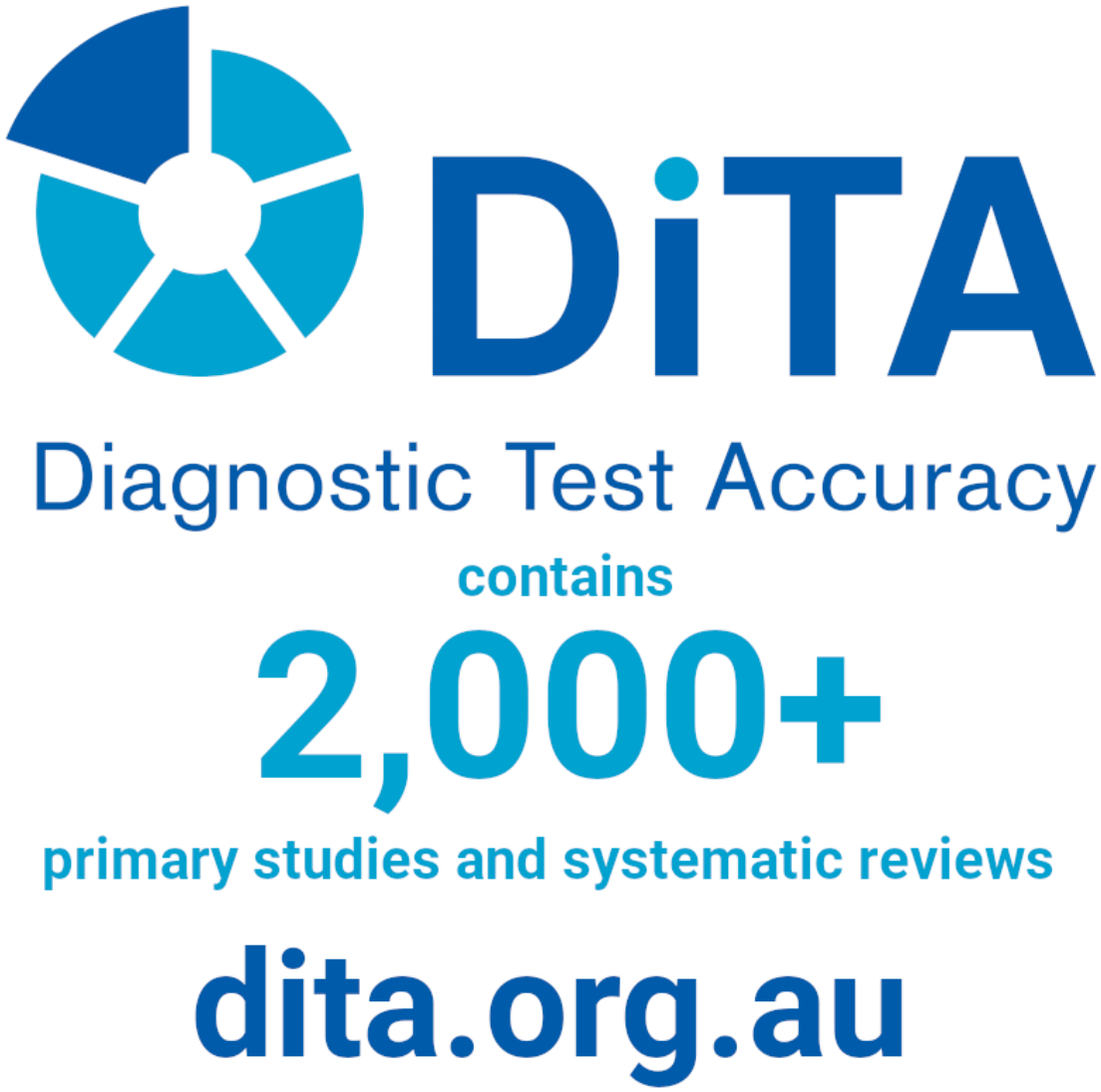
We are seeking expressions of interest from physiotherapists interested in joining the PEDro Steering Committee. Three positions are available. Applicants are asked to submit an expression of interest that addresses, in a maximum of two pages, these key criteria:

- has a PhD
- has current physiotherapy registration or licensing
- has had success in obtaining competitive research grants
- is committed to evidence-based practice
- has a track record of collaboration
- has established networks in health, university and other relevant sectors, and
- resides within 3 hours of the Sydney time zone.

Applicants may be asked to supply additional information or be contacted by one of the members of the PEDro Steering Committee during the selection process.

Expressions of interest should be emailed to Anne Moseley (anne.moseley@sydney.edu.au) by 9am Sydney time on Monday 22 March 2021. Please use “EOI PEDro Steering Committee” in the subject line. Late applications will not be considered.

D. DiTA now contains 2,000+ primary studies and systematic reviews



We are pleased to announce that DiTA has just achieved an important milestone. There are now 2,000+ articles reporting the results of primary studies and systematic reviews evaluating the accuracy of diagnostic tests used by physiotherapists indexed in DiTA.

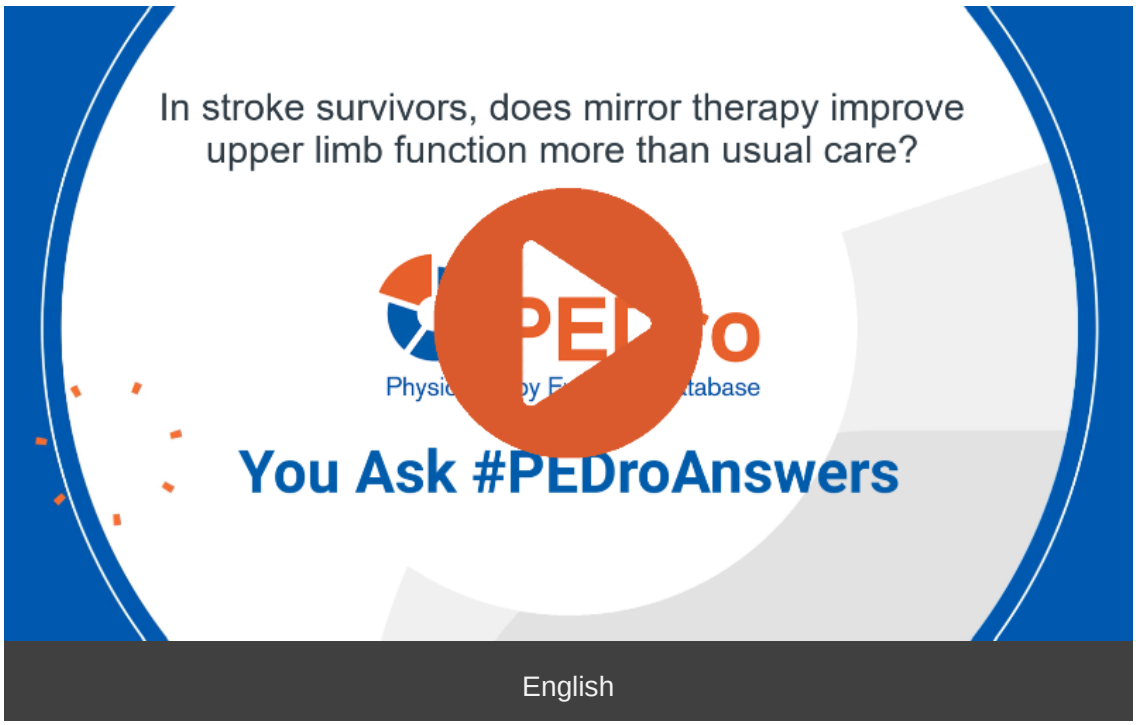
E. Second video of PEDro Advanced Search for the "You Ask #PEDroAnswers" campaign

Each month in 2021 we will share short videos illustrating how to use the PEDro Advanced Search to find the best research to answer clinical questions submitted by PEDro users.

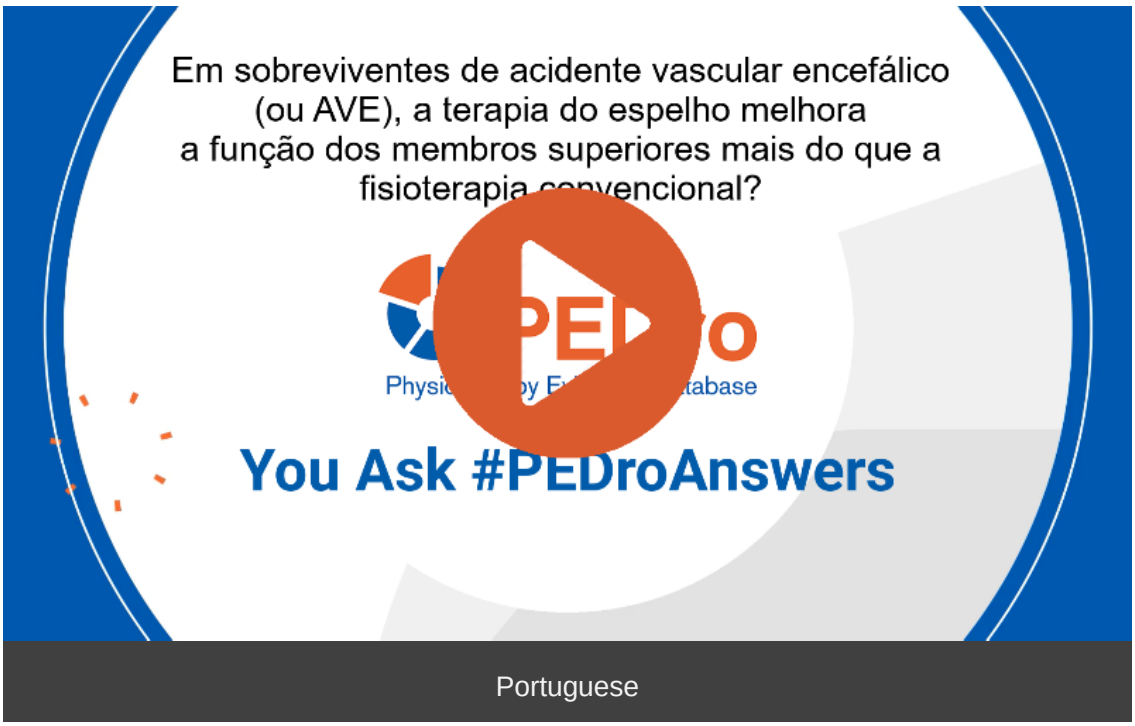
The second question to be answered is "In stroke survivors, does mirror therapy improve upper limb function more than usual care?".

The Search terms are:

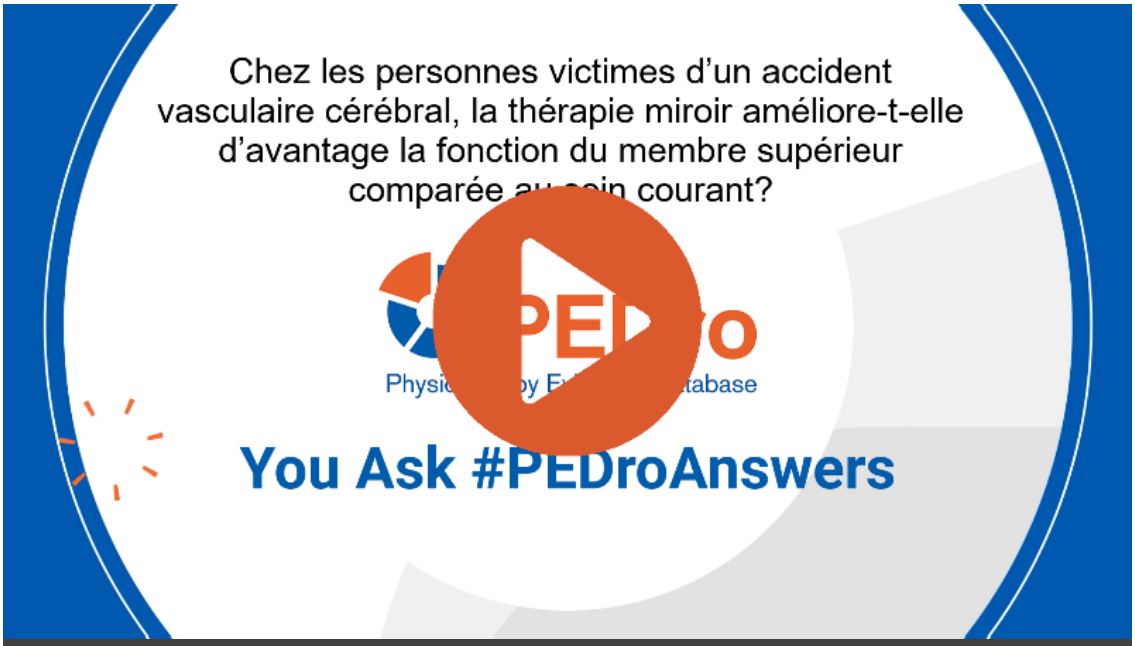
- stroke upper (Title)
- mirror (Abstract & Title).



English



Portuguese



French

PEDro acknowledges the contributions of: Ana Helena Salles from Faculdade de Ciências Médicas de Minas Gerais, Brazil who translated and recorded the Portuguese version; and, Sébastien Matéo and Matthieu Guémann from the Société Française de Physiothérapie who translated and recorded the French version.

You can submit your question for the "You Ask #PEDroAnswers" campaign at https://pedro.org.au/english/learn/you-ask-pedro-answers/.

F. "You Ask #PEDroAnswers" search tip #2 - Don't enter search terms for each element of the PICO question

Throughout 2021 we will be sharing some tips on how to use the PEDro Advanced Search. The second tip is "Don't enter search terms for each element of the PICO question".

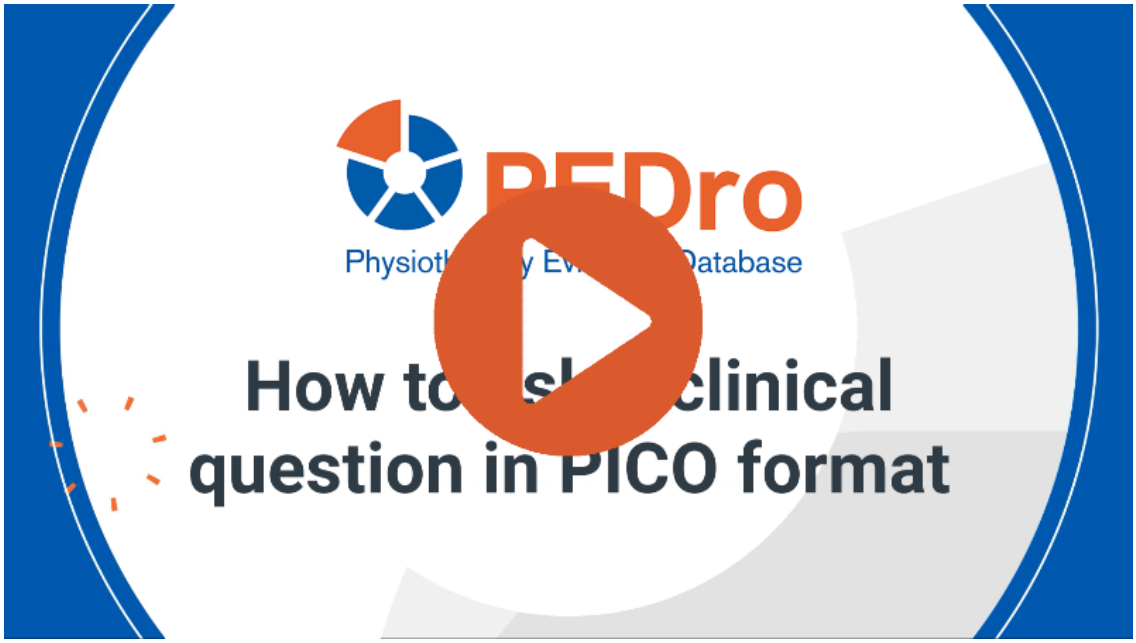
We released the first search tip in February 2021, it was "ask a PICO question before you search". In order to answer your clinical question, it is helpful to break it down into four essential elements using the 'PICO' framework. In this memory aid, **P** stands for patient, **I** stands for intervention, **C** stands for comparison, and **O** stands for outcome.

Asking a PICO question gives you four options to choose from when selecting search terms, one potential search term for each PICO element. But you don't need to enter terms for all four PICO elements when you perform your search. Usually just one or two are enough. A good starting point is to enter terms for the patient and intervention elements of your question.

The first search video for the “You Ask #PEDroAnswers” campaign illustrated how using terms for the patient and intervention can quickly identify relevant research. The question was: “in older people living at home, does telephone motivational interviewing with a physiotherapist increase physical activity compared to providing written advice?” The Search terms used were ‘gerontology’ in the Subdiscipline field for the patient and ‘motivational interview*’ in the Abstract & Title field for the intervention.

The best PICO elements to use to generate search terms will vary for different questions. Before you start your search think, which of the PICO elements will inevitably and uniquely be associated with the articles that I wish to find? Enter terms for those elements in your PEDro search.

We’ve recently revised the PEDro video tutorial on posing clinical questions about interventions:



G. “You Ask #PEDroAnswers” campaign calls on physiotherapists in Spain and Italy to submit a question

Physiotherapists from around the globe are submitting their clinical questions to the “You Ask #PEDroAnswers” campaign. We invite all physiotherapists to join in.

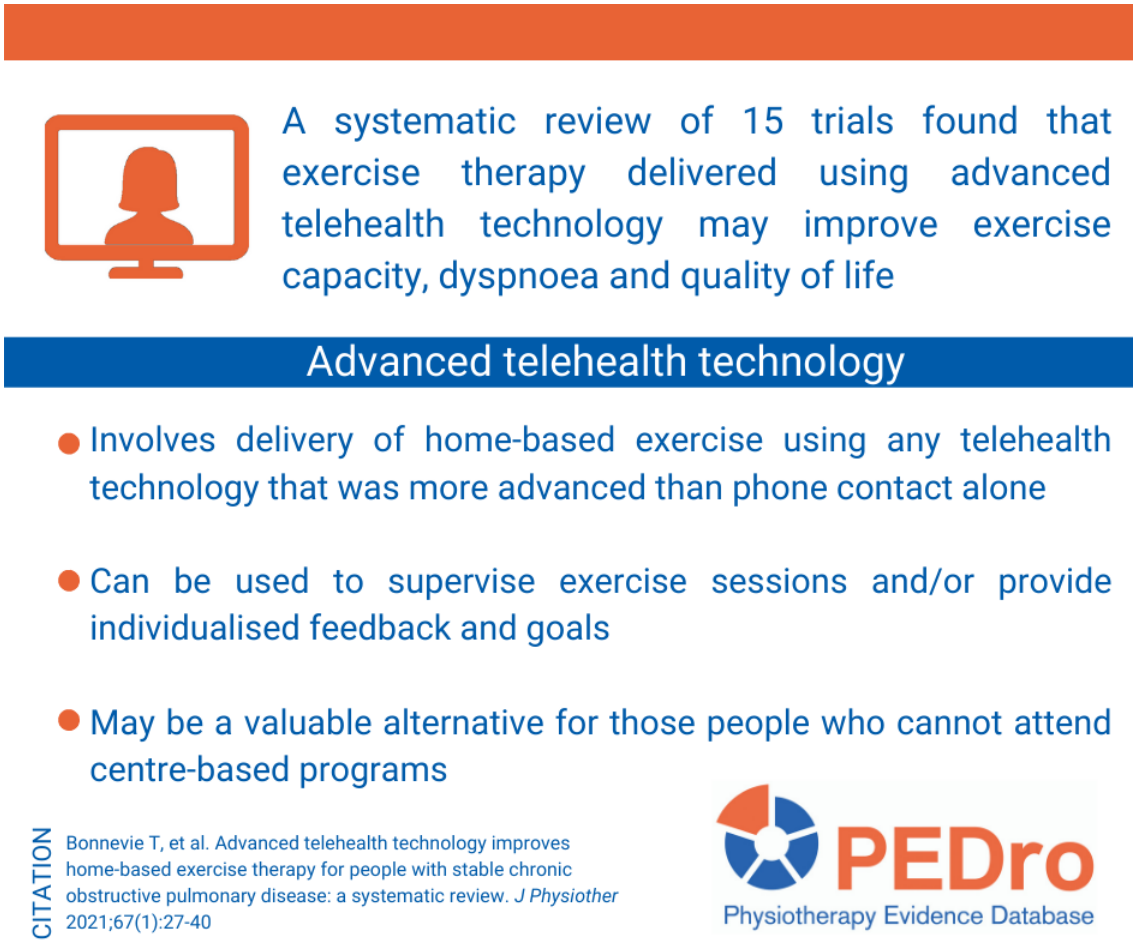
This month we are calling on physiotherapists in Spain and Italy to submit their clinical questions. We’d love to hear from members of the Associação Espanola de Fisioterapeutas and Società Italiana Fisioterapia!

You can submit your clinical questions by using a contact form on the PEDro web-site, by tagging us with your question in a Tweet (@PEDro_database or @PEDrinho_dbase) or through Facebook by posting your question as a comment on a "You Ask #PEDroAnswers" post or sending us your question via Messenger (Physiotherapy Evidence Database or PEDrinho - Physiotherapy Evidence Database). Remember to include all the PICO elements in your question. That is, the **P**atient, **I**ntervention, **C**omparator and **O**utcome.

H. Infographic for systematic review that found that exercise therapy delivered using advanced telehealth technology may improve exercise capacity, dyspnoea and quality of life in chronic obstructive pulmonary disease

Last month we summarised the systematic review by Bonnevie et al. The review concluded that exercise therapy delivered using advanced telehealth technology may improve exercise capacity, dyspnoea and quality of life in people with chronic obstructive pulmonary disease.

Some suggestions for using advanced telehealth technology to support pulmonary rehabilitation are included in this infographic.



Bonnevie T, et al. Advanced telehealth technology improves home-based exercise therapy for people with stable chronic obstructive pulmonary disease: a systematic review. *J Physiother* 2021;67(1):27-40

Read more on PEDro.

I. Systematic review found that aerobic exercise promotes smoking cessation in adults in the short term

Smokers tend to have unhealthy habits, including being physically inactive. The combination of smoking and physical inactivity increases the risk of developing chronic diseases. Aerobic exercise may assist smokers to quit. This systematic review aimed to estimate the effects of aerobic exercise compared to usual care on smoking cessation in adults.

Guided by a prospectively registered protocol, citation tracking plus sensitive searches of 6 databases and 4 trial registries were performed to identify randomised controlled trials evaluating aerobic exercise for smoking cessation. To be included, the trials needed to compare aerobic exercise (with or without nicotine therapy replacement) to usual care

(with or without nicotine replacement). The aerobic exercise could be delivered with co-interventions, including behavioural support and drug therapy. Usual care was defined as any behavioural support, including educational classes, lectures and health orientations, social support, and strategies for replacing cigarettes. The primary outcome was smoking cessation defined as the prevalence of those reporting abstinence in the short (< 3 months), medium (3-12 months) and long (> 12 months) term. Two reviewers independently selected trials for inclusion, extracted data, and evaluated trial quality and certainty of evidence. Disagreements were resolved by a third reviewer. Trial quality was evaluated using the PEDro scale. Certainty of the evidence was evaluated using the Grading of Recommendations Assessment, Development and Evaluation (GRADE) approach. Meta-analysis was performed to calculate the risk ratio and 95% confidence interval (CI) in the short, medium and long term.

11 trials involving 2,093 participants were included in the meta-analysis. Average participant age ranged from 37 to 48 years. 6 trials exclusively recruited women and 5 recruited a combination of men and women. Aerobic exercise was performed in group sessions in all trials. Average session duration was 20-60 minutes, with 1-6 sessions/week for 7-15 weeks.

Aerobic exercise was better than usual care in achieving smoking cessation at short term, with a risk ratio of 0.79 (95% CI 0.66 to 0.94; 11 trials; 1,945 participants; moderate certainty). In contrast, there were no differences between aerobic exercise and usual care in the medium (risk ratio 0.91; 95% CI 0.72 to 1.15; 9 trials; 1,486 participants; moderate certainty) and long (risk ratio 0.96; 95% CI 0.78 to 1.18; 7 trials; 1,529 participants; moderate certainty) term.

Aerobic exercise (combined with behavioural support and drug therapy) can be used to aid smoking cessation during the first 3 months of cessation.

Santos CP, et al. Effectiveness of aerobic exercise on smoking cessation in adults: a systematic review and meta-analysis. *J Phys Act Health* 2021;18(2):230-42

Read more on PEDro.

J. Large clinical trial in women with urinary incontinence found that biofeedback in conjunction with pelvic floor training is not superior to pelvic floor muscle training alone

Urinary incontinence is a significant issue, affecting one in three women worldwide. In a blog for #MyPTArticleOfTheMonth back in October 2019, women's health physiotherapist

and exercise scientist Professor Kari Bø highlighted the results of a recent high-quality trial investigating electromyography biofeedback-assisted pelvic floor muscle training. The OPAL trial has now been published in *Health Technology Assessment*, and we summarise the findings in this blog.

Professor Suzanne Hagen led this large-scale, multi-centre trial in the community and outpatient care setting in the United Kingdom. The trial compared electromyography biofeedback-assisted pelvic floor muscle training to pelvic floor muscle training alone for women with stress or mixed urinary incontinence who could voluntarily contract their pelvic floor muscles. Pelvic floor muscle training is the recommended first-line treatment for this patient group. The OPAL trial investigated the clinical- and cost-effectiveness of adding electromyography biofeedback (providing visual or auditory feedback of internal muscle movement) as an adjunct to muscle training.

Women aged 18 years and older who were newly presenting with stress or mixed urinary incontinence were invited to participate. A concealed and random process (with minimisation by incontinence type, centre, age and severity) was used to allocate participants into biofeedback pelvic floor muscle training or basic pelvic floor muscle training groups. All participants were offered 6 appointments over a 16-week period to receive the interventions. Home biofeedback units were provided to the biofeedback pelvic floor muscle training group. Participants in both groups were asked to complete individualised home exercise programs. The primary outcome of interest was the International Consultation on Incontinence Questionnaire Urinary Incontinence Short Form (ICIQ-UI SF) score at 2 years. This is a four-item questionnaire (total score ranging from 0 to 21, with higher scores indicating greater severity). Assessors were not blinded to the primary outcome, but were blinded for some of the secondary outcomes. Adverse events were monitored and economic data were collected. An intention-to-treat analysis was performed.

600 women were enrolled in the trial, with 300 allocated to the biofeedback pelvic floor muscle training group and 300 to basic pelvic floor muscle training. 468 participants (78%) completed the 2-year follow-up. Adherence was similar for both groups, with about 77% of participants attending at least one of the scheduled appointments and about 80% undertaking part of the home program. Participants reported being hindered by lack of time to complete the interventions. The mean ICIQ-UI SF score at 2 years was 8.2 (standard deviation 5.1) for biofeedback pelvic floor muscle training group and 8.5 (4.9) for basic pelvic floor muscle training group. There was no difference between the groups, with an adjusted mean between-difference of -0.09 (95% confidence interval -0.92 to 0.75). 23 participants (21 biofeedback pelvic floor muscle training, 2 basic pelvic floor muscle training) had an adverse event that was related or possibly related to one of the interventions. Biofeedback pelvic floor muscle training (£956) had a similar cost to basic pelvic floor muscle training (£906), with a mean between-group difference of £50 (95% confidence interval -84 to 184).

The trial concluded that adding electromyography biofeedback to pelvic floor muscle training offers no benefit over pelvic floor muscle training alone in terms of long term continence outcomes or costs. Kari Bø says: “this high-quality trial has an important message for physiotherapists treating women with urinary incontinence - pelvic floor muscle training is the key element of treatment.”

Hagen S, et al. Basic versus biofeedback mediated intensive pelvic floor muscle training for women with urinary incontinence: the OPAL RCT. *Health Technol Assess* 2020;24(70):1-144.

Read more on PEDro.

K. 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 2020 were World Physiotherapy Member Organisations from 39 countries.

We also thank the individual physiotherapists who have made a donation to PEDro during 2020.

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 pedro.org.au/english/about/contact-details/.

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

L. PEDro social media highlights from 2020

We found the five social media posts that PEDro users most engaged with in 2020. In case you missed the posts, we provide a brief description and links to the original posts below.

1

PEDro honours the adaptability and resilience of physiotherapists during the COVID-19 pandemic for world physiotherapy day

2

Infographic for systematic review that found Tai Chi probably improves physical and mental health in people with knee osteoarthritis

3

Infographic for systematic review that found exercise reduces the rate of falls in people 60 years and older living in the community

4

PEDro world-wide journal club on constraint induced movement therapy after stroke is now available

5

Infographic for systematic review that antenatal pelvic floor muscle training can prevent urinary incontinence

M. PEDro at the World Physiotherapy Congress 2021

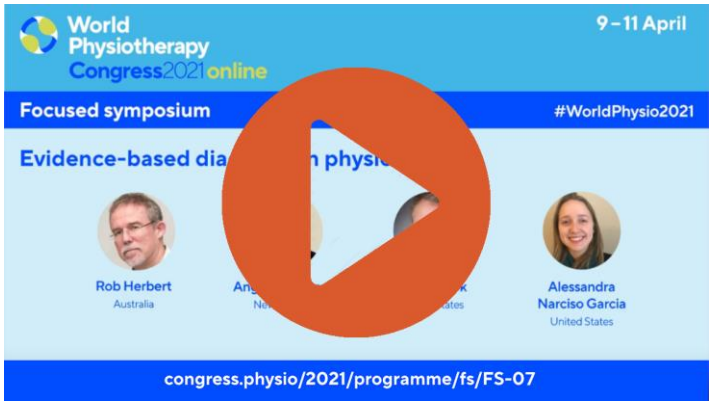
The World Physiotherapy Congress 2021 will be held online on 9-11 April 2021. As a World Physiotherapy Professional Partner, PEDro will be participating in the Congress scientific program and exhibition.

We are involved in three focused symposia:

- Accessing evidence in low resource countries (FS-09): overcoming barriers to accessing evidence in low-resource countries. This session will be presented by Anne Moseley, Jean Damascene Gasherebuka, Vincent Singh Paramanandam, Guillermo Gómez and Saurab Sharma. It will consider barriers to accessing high-quality clinical research, particularly in low-resource countries. Strategies to overcome these barriers will be investigated, including open-access resources, continuing professional development and access to full-text research articles.
- Commonly misunderstood statistics (FS-11): commonly misunderstood statistics in physiotherapy research. Quinette Louw, Clare Ardern, Mark Elkins and Rafael Zambelli Pinto will present this session. Participants will learn to recognise common misunderstandings of statistical procedures, clarify the correct meaning and appropriate uses of statistical analyses, and identify plain-English explanations of statistical results to facilitate involvement of patients in shared decision-making.
- Evidence-based diagnosis (FS-07): evidence-based diagnosis in physiotherapy. The symposia will be presented by Rob Herbert, Angela Cadogan, Chad Cook and Alessandra Narciso Garcia. Participants will learn about the logic and process of making an evidence-based diagnosis, how to locate and interpret studies of the accuracy of diagnostic tests used by physiotherapists and develop an understanding about how studies of diagnostic test accuracy are designed.

These short videos describe the plan for two of the symposia:

Anne Moseley talks about the accessing evidence in low resource countries symposium



Chad Cook explains the evidence-based diagnosis symposium

We are also involved in one workshop, called "Research into practice (WS-08): using research in clinical practice - how to read randomised trials". Featuring Anne Moseley, Benita Olivier and David Keene, this workshop is relevant for physiotherapists who struggle with reading articles that report the results of randomised controlled trials. By the end of the workshop, participants will understand the value of using randomised trials to guide practice, be able to describe key features that reduce bias and increase usefulness of trials, and have some understanding of the latest methods for analysing and reporting treatment effects in trials.

Also keep an eye out for our e-poster entitled "Access to free full text via the Physiotherapy Evidence Database (PEDro): an observational study".

Some PEDro people will be available during the congress to answer any questions you may have and give virtual tours of the PEDro and DiTA resources. You will find us by navigating to the "Partners and Exhibitors" section of the congress platform.

We look forward to meeting you online at the World Physiotherapy Congress 2021.

N. Next PEDro and DiTA updates (April 2021)

The next PEDro and DiTA updates are on Monday 5 April 2021.

Proudly supported by

AUSTRALIAN PHYSIOTHERAPY ASSOCIATION