



A. PEDro update (5 September 2022)

[PEDro](#) contains 56,121 records. In the 5 September 2022 update you will find:

- 42,849 reports of randomised controlled trials (42,094 of these trials have confirmed ratings of methodological quality using the PEDro scale)
- 12,551 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 (5 September 2022)

[DiTA](#) contains 2,378 records. In the 5 September 2022 update you will find:

- 2,128 reports of primary studies, and
- 250 reports of systematic reviews.

For the latest primary studies and systematic reviews evaluating diagnostic tests in physiotherapy visit [Evidence in your inbox](#).

C. PEDro celebrates World PT Day

September 8 marks #WorldPTDay. The theme for this year is osteoarthritis.

Osteoarthritis is the most common joint condition impacting 520 million people around the world and is a leading cause of disability.

Physiotherapists play an important role in the prevention and management of people affected by osteoarthritis. PEDro indexes the latest evidence in the physiotherapy prevention and management of a range of health conditions across the lifespan, including osteoarthritis.

To keep up to date with the latest osteoarthritis research, subscribe to the [Evidence in Your Inbox](#) feed for musculoskeletal, orthopaedics, and chronic pain.



D. #PEDroTacklesBarriers to evidence-based physiotherapy: launch video now available in Italian

We are excited to announce that the #PEDroTacklesBarriers to evidence-based physiotherapy campaign launch video is now available in [Italian](#). Thank you to Leonardo Pellicciari, Francesco Ferrarello and Michele Marelli from Società Italiana Fisioterapia for translating and recording the video.



The #PEDroTacklesBarriers to evidence-based physiotherapy campaign aims to tackle the four biggest barriers to evidence-based physiotherapy: time, language, lack of access and lack of statistical skills. This month the campaign will be tackling the barrier of lack of access.

You can view previous tips about tackling the barriers of time and language on the PEDro website ([English](#), [Portuguese](#), [Italian](#), [French](#)).

E. #PEDroTacklesBarriers to evidence-based physiotherapy: access full text using links in PEDro

The '#PEDroTacklesBarriers to evidence-based physiotherapy' campaign will help you to tackle the four biggest barriers to evidence-based physiotherapy – lack of time, language, lack of access, and lack of statistical skills.

If you are new to the campaign, we suggest that you start at the beginning by looking at earlier posts on strategies to tackle the barriers of lack of time and language. These are available on the [campaign webpage](#), [blog](#), [Twitter](#) or [Facebook](#).

Evidence-based physiotherapy cannot be implemented if there are barriers to accessing research. Below are two videos on strategies to tackle the barrier of lack of access. The first focuses on [accessing full text using the links in PEDro](#). The second will outline strategies that use other non-PEDro methods.



Access to full-text articles is crucial for all health professionals trying to provide evidenced-based care. Full-text articles are needed to appraise the quality and applicability of research to address a clinical question. They are also needed for a detailed description of the intervention.

When a PEDro search locates an article of interest, clicking on the title hyperlink brings up its “Detailed Search Results” page. In 2022 we have recently estimated the percentage of articles in PEDro that have free full-text access via these links. Access to free full text was available for 60% (95% confidence interval 53% to 67%) of the articles sampled. This is higher than the free full-text access that was available via PubMed (47%, 95% confidence interval 40% to 54%).

PEDro provides up to 5 links to full text for each article. The number of links will depend on whether the article is indexed in PubMed or PubMed Central, if the article has a DOI number, and if the journal has a website. These links may be to free full text, or you may need a subscription to the journal or to pay to view the article. Access to free full text is determined by the journal publishers. The links to full text in PEDro are listed in order of likelihood for accessing free full text. With links at the top of the list being more likely to link to free full text than the links at the end of the list.

The links are:

1. **PubMed Central**

PubMed Central is a free full-text archive of biomedical journal literature produced by the United States National Institutes of Health’s National Library of Medicine. In January 2022 it contained over 7.6 million full-text articles that have been published in journals that have an agreement with PubMed Central to archive their content. Clicking on the “PubMed Central” link on the PEDro “Detailed Search Results” page will take you directly to the article in PubMed Central. You may be able to view the full-text article on this website or open the article in Portable Document Format (PDF) by clicking on a link.

2. **DOI**

This is the acronym for Digital Object Identifier, a unique alphanumeric string assigned by the International DOI Foundation to identify content and provide a persistent link to its location on the internet. Clicking on the “DOI” link on the PEDro “Detailed Search Results” page will take you directly to the article on the journal’s website. Not all journals will allow you to access full text free of charge. In this case you may be asked to login or to pay to access the article. If a subscription is required, you may be able to access the article via the library provided by your university or health service your local medical library.

3. PubMed

Produced by the United States National Institutes of Health's National Library of Medicine, PubMed is a free database containing over 34 million citations and abstracts of biomedical literature. The "PubMed" link on the PEDro "Detailed Search Results" page will take you to the PubMed entry for the article. This PubMed entry may contain links to full text from other sources.

4. PDF locator

Some search engines on the internet are designed to find free PDF documents. In PEDro we have created a link that uses PDFSearchEngine.net to search for PDF copies of the article. Clicking on the "PDF locator" link on the PEDro "Detailed Search Results" page will take you to the search results generated by PDFSearchEngine. These results are ranked for relevance using a built-in algorithm. You will need to scan down the list of search results to see if a link to full text is available for your article of interest. We suggest that you look at the first two pages of search results.

5. Publisher

The last option for accessing full text is via the website of the journal using the "publisher" hyperlink on the PEDro "Detailed Search Results" page. Accessing full text will require additional navigation through the journal website in order to locate the issue that your target article is published in. Not all journals will allow you to access full text free of charge. In this case you may be asked to login or to pay to access the article.



Saurab Sharma, *University of New South Wales, Australia*

As a physiotherapist, researcher, and educator in Nepal, Saurab Sharma often faced barriers to accessing full-text research articles that are behind a "paywall". Saurab provides some innovative solutions on how to access full-text articles freely in low and middle-income countries where resources are scarce.

For example, digital archives like [PubMed Central](#) or [Hinari](#) provide options to search for articles in specific languages and can provide free access to full-text articles. Other good resources for accessing free full-text articles are journals or publishers that publish 'open-access' articles such as [Journal of Physiotherapy](#), [PLoS](#) and [BMC](#). The Physiotherapy Evidence Database also provides links to accessing full-text articles, some of which are freely available. [Research published in 2022](#) showed that PEDro provides access to 60 % of the articles sampled from the PEDro database, compared to PubMed which provides access to 47% of full-text articles.



[In this video](#), Saurab explores these resources and other strategies to address the barrier of access.

F. Online PEDro training

No matter where you live, you can access online training with PEDro. To participate, simply subscribe and login to the training session whenever it is convenient for you. Online training is currently available in English and Portuguese.

The training includes video instruction, examples and opportunities to practice and obtain feedback for using the PEDro scale. There is also an accuracy test to confirm that items are being judged in a similar way to other raters.

Subscribers passing the accuracy test are issued a certificate and are invited to join our large volunteer network to rate articles for PEDro.

[Find out more about the online PEDro training program for using the PEDro scale.](#)

G. Infographic for systematic review found that every 30min/week of moderate to vigorous supervised aerobic exercise training in people with type 2 diabetes significantly reduced HbA1c, with the greatest reduction seen with 100min/week

Last month we summarised the [systematic review by Jayedi A et al.](#) The review concluded that for people with type 2 diabetes every 30 min/week of supervised moderate to vigorous intensity aerobic exercise training significantly reduced HbA1c, with the greatest reduction seen with 100 min/week, compared to no intervention or usual activity. The certainty of the evidence was rated strong.

Some findings are included in this infographic.

INCLUSION CRITERIA

Study design: Systematic review of randomised controlled trials

Population: Adults with type 2 diabetes

Intervention: Supervised aerobic exercise training for 12 weeks or longer



Comparator: No exercise training

Outcome: Change in glycaemic control, measured by glycated haemoglobin (HbA1c)

FINDINGS

Each 30 min/week of supervised aerobic exercise reduced HbA1c by -0.22 percentage point (95% CI -0.29 to -0.15).

Levels of HbA1c decreased proportionally with an increase in the duration of supervised aerobic exercise training up to 140 min/week (MD: -0.88 percentage point, 95% CI -1.22 to -0.53), though the continued improvements after 100 min/week were trivial.

INCLUDED TRIALS

All trials except for one prescribed continuous aerobic exercise from moderate to vigorous intensity (moderate (n=12), moderate-vigorous (n=10), vigorous (n=4)).



Intervention duration ranged from 12-52 weeks at 1-4 sessions/week.

TAKE AWAY

Based on strong certainty evidence, supervised aerobic training for at least 12 weeks improves glycaemic control in adults with type 2 diabetes, with continued improvements for every additional 30 min/week up to 100 min/week.

NOTE

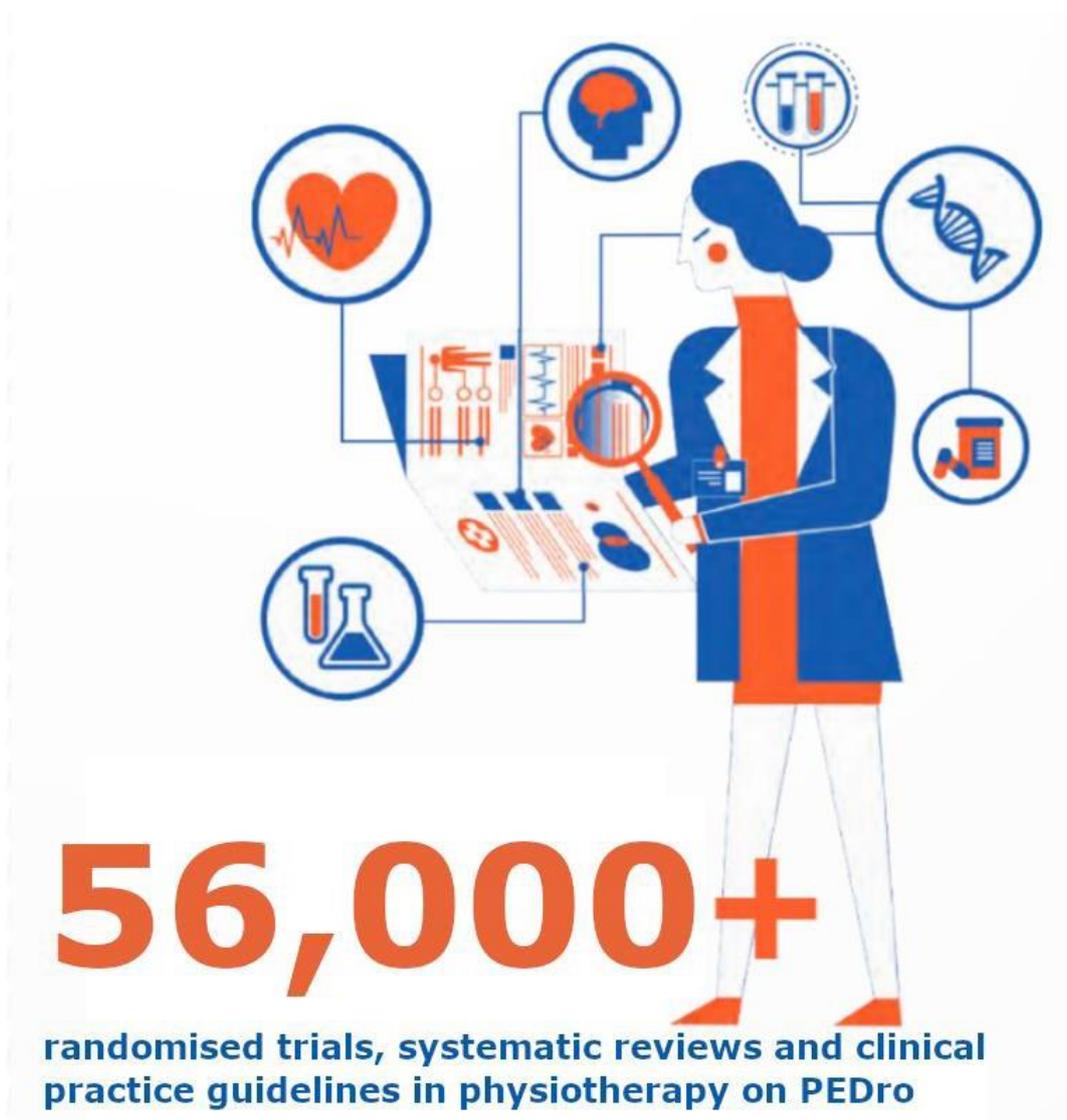
Included trials involved supervised aerobic exercise training of any intensity, modality, frequency and session duration, though trials involving resistance training were excluded, as were active comparator controls.

[Jayedi A, Emadi A, Shab-Bidar S. Dose-dependent effect of supervised aerobic exercise on hba1c in patients with type 2 diabetes: a meta-analysis of randomized controlled trials. *Sports Medicine* 2022 Apr 1:Epub ahead of print](#)

[Read more on PEDro.](#)

H. PEDro now contains 56,000+ reports of trials, reviews and guidelines

We are pleased to announce that PEDro has just achieved a new milestone. There are now 56,000+ reports of trials, reviews and guidelines indexed on [PEDro](#).



I. Systematic review found that cognitive behavioural therapy and hypnotherapy are associated with higher treatment success compared to no intervention for children with functional abdominal pain disorders.

Functional abdominal pain disorders (FAPDs) can be divided into four subcategories (functional dyspepsia, irritable bowel syndrome, abdominal migraine and functional abdominal pain not otherwise specified). These painful conditions can severely affect the quality of life of children and their families, including reduced school/work attendance and performance. The management of FAPD can be time-consuming and financially costly for families and health care teams, with many children continuing to present symptoms as

adults.

This systematic review aimed to estimate the effects of psychosocial interventions compared to no intervention or any control on outcomes treatment success, pain frequency, pain intensity, and withdrawal owing to adverse events in children (aged 4-18 years) with FAPD.

This systematic review registered their study protocol before data collection. Sensitive searches performed in five databases (including PubMed and the Cochrane Library) and three trial registries were used to identify randomised controlled trials (RCTs) published in any language. The review included participants who were children (aged 4-18 years) diagnosed with a FAPD defined by the Rome or similar criteria. Psychosocial interventions included cognitive behavioural therapy (CBT), yoga, hypnotherapy, educational support, gut-directed hypnotherapy, guided imagery, and relaxation. The comparators were no intervention or any control. The primary outcomes were treatment success, pain frequency, pain intensity, and withdrawal owing to adverse event.

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. Trial risk of bias was evaluated using the Cochrane risk of bias tool and certainty of evidence was evaluated using the Grading of Recommendations Assessment, Development and Evaluation (GRADE) framework. Meta-analysis was used to pool the included trials to calculate risk ratio (RR) with corresponding 95% Confidence Intervals (CIs) for dichotomous data.

33 trials (2657 children) were included in the review. Participants had a mean [range] age of 12 [7-17] years and were predominately female (67.3%). CBT was the most investigated intervention compared to no intervention (n=12), followed by yoga (n=3) and hypnotherapy (n=2). The remaining trials (n=16) compared a psychosocial intervention with another active intervention.

Compared to no intervention, there was moderate certainty evidence that CBT was associated with higher treatment success (RR 2.37 (95%CI 1.30 to 4.34; number needed to treat [NNT] = 5; 6 trials; 324 participants); low certainty evidence that there may be no difference in treatment success with yoga (RR 1.09 (95%CI 0.58 to 2.08; 2 trials; 99 participants); and low certainty evidence that hypnotherapy may lead to higher treatment success (RR 2.86 (95% CI 1.19 to 6.83; NNT=5; 2 trials; 91 participants).

CBT and hypnotherapy were associated with higher treatment success compared to no intervention for the management of FAPD, whereas yoga was not. CBT and hypnotherapy may be suitable treatment options for the management of FAPDs in childhood.

Gordon M, Sinopoulou V, Tabbers M, et al. Psychosocial Interventions for the Treatment of

[Read more on PEDro.](#)

J. The evolution of physiotherapy research indexed in PEDro from 1986 to 2017

Have you ever wondered how the physiotherapy profession has changed over time? Are the interventions being used and research the same now as they were 30 years ago? Who produces this evidence and has the research become more impactful? A recent article published in the *Brazilian Journal of Physical Therapy* provides some insights.

The article undertook a bibliometric approach to describe the thematic structure of physiotherapy using articles indexed in the PEDro database. Bibliometrics involves using quantitative data extracted from scientific publication to study science dynamics and research performance. The bibliometric analysis of articles indexed in PEDro investigated how the topics of physiotherapy interventions have changed over three time periods (1986 to 1997, 1998 to 2007, and 2008 to 2017) and determined the main producers of this research.

Analysing 29,090 articles, this study found an exponential increase in physiotherapy research being produced from 1986 to 2017. The physiotherapy profession, as described by the research indexed in PEDro, can be categorised into eight topics: “neurological rehabilitation”; “methods”; “exercise for prevention and rehabilitation of lifestyle diseases”; “assessment and treatment of musculoskeletal pain”; “physical activity, health promotion, and behaviour change”; “respiratory physical therapy”; “hospital, primary care, and health economics”; and, “cancer and complementary therapies”. There has been increased emphasis on topics related to “neurological rehabilitation”, “methods”, “exercise related to lifestyle diseases”, and “physical activity” with time. From 1986 to 2017, 108 countries published at least one article evaluating physiotherapy interventions. While the main producers of this research were traditionally located in North America (USA and Canada) and Europe (France, Finland, and Netherlands), there is a substantial increase in research from other countries including Australia, China, and Brazil. Interestingly, the most productive countries and institutions were not always found to obtain the highest research impact, in terms of average citation per article.

Bibliometric research provides insights into the structure and evolution of professions. While the physiotherapy profession has embraced evidence-based practice, it is encouraging to see the growth in research activity with time and the proliferation of research being produced in low- and middle-income countries. The visualisation methods

used for bibliometric data can allow for the identification of evidence-practice gaps, research priorities, and novel research directions taken by clinicians, researchers and stakeholders. For example, future studies could track the impact of the COVID-19 pandemic on the scientific production of research in physiotherapy. Sometimes, to better understand where we are going, there is a need to stop and take a look at where we have been and, in this case, bibliometrics provides some answers.

[Carballo-Costa L, et al. Evolution of the thematic structure and main producers of physical therapy interventions research: A bibliometric analysis \(1986 to 2017\). *Braz J Phys Ther.* 2022;26\(4\):100429](#)

K. Next PEDro and DiTA updates (October 2022)

The next [PEDro](#) and [DiTA](#) updates are on 3 October 2022.

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