

A. PEDro update (6 May 2019)

PEDro contains 43,384 records. In the 6 May 2019 update you will find:

- 33,928 reports of randomised controlled trials (33,065 of these trials have confirmed ratings of methodological quality using the PEDro scale)
- 8,783 reports of systematic reviews, and
- 673 reports of evidence-based clinical practice guidelines.

PEDro was updated on 6 May 2019. For latest guidelines, reviews and trials in physiotherapy visit *Evidence in your inbox*.

B. Introducing the new PEDro logo



PEDro celebrates its 20th birthday in October 2019. To mark this important milestone we have decided to refresh the PEDro logo and web-site. The new logo is now being used, and we will launch the new-look web-site later in the year. You can watch the PEDro logo transform from old to new in this video.

C. #MyPTArticleOfTheMonth resource – how to search PEDro

PEDro is an excellent source of high-quality clinical research to answer clinical questions about the effects of physiotherapy interventions. We have put together 10 tips to help you get started or enhance your skills with PEDro searching.

- Think about (and record) your clinical question before you start searching. The 'PICO' memory aid
 will help ensure that all key elements are included in your question: the Patient, Intervention,
 Comparator, and Outcome.
- 2. For each element of your PICO question, jot down a couple of words that capture the concept and can potentially be used as search terms. For example, the word 'cue' could be used to summarise an intervention involving gait training using visual or auditory cues. Entering search terms for two PICO elements is a good starting point for performing your search.
- 3. Use the PEDro Advanced Search interface. This contains 13 search fields that can be used to specify the elements of your clinical question. Six fields contain drop-down lists (Therapy, Problem, Body Part, Subdiscipline, Topic, Method). The terms in these lists are applied to all articles indexed in PEDro by trained raters. For example, the term 'Gerontology' in the Subdiscipline field could be used for the patient group of older people. You can type words into four free-text fields (Abstract & Title, Author/Association, Title Only, Source).
- 4. Use advanced search features in free-text fields (eg, Abstract & Title). Truncation allows you to search for words that start (or end) with the same string of text. For example, cue* will return articles that contain the words cue, cueing and cues, and *feedback will return articles that contain the words feedback, biofeedback and myofeedback. Words that occur together can be searched for as a single term using inverted commas. For example, "blood pressure".
- 5. Only enter English words in the Abstract & Title and Title Only fields.
- 6. Don't use Boolean Operators (AND, OR, NOT) in free-text fields.
- 7. If your search returns too many articles, click on the "Continue Searching (Advanced)" hyperlink and add more terms to make your search more precise.
- 8. If your search returns too few (or no) articles, click on the "Continue Searching (Advanced)" hyperlink and remove or change your search terms.
- 9. If you are new to PEDro searching, watch the "How to perform a PEDro Advanced Search" video. This video is available in <u>English</u>, <u>Simplified Chinese</u>, <u>Traditional Chinese</u>, <u>Portuguese</u>, <u>German</u>, <u>French</u>, <u>Spanish</u>, <u>Italian</u>, <u>Japanese</u>, <u>Korean</u>, <u>Tamil</u>, and <u>Dutch</u>.
- 10. If you have performed a PEDro Advance Search before, watch the "How to optimise PEDro searching" video. This video is available in <u>English</u>, <u>Portuguese</u>, <u>German</u>, <u>French</u>, <u>Spanish</u>, <u>Italian</u>, Japanese, and Tamil.

Your ability to read scientific articles reporting the results of systematic reviews will improve with practice. Make the commitment to read at least one article per month and share your reading with the global physiotherapy community in #MyPTArticleOfTheMonth.



Marcelo Rieder is physiotherapy team leader in the trauma intensive care unit at the Grupo Hospitalar Conceição and professor in cardiorespiratory physiotherapy at the Centro Universitário Metodista in Rio Grande do Sul, Brazil. He is recognised by the Conselho Federal de Fisioterapia e Terapia Ocupacionala as a specialist respiratory physiotherapist.

One way Marcelo keeps up-to-date with developments in early mobilisation and other physiotherapy interventions used in intensive care is by subscribing to the cardiothoracics feed of PEDro's *Evidence in your inbox*. Two recent papers have caught Marcelo's eye.

Arias-Fernandez P, et al. Rehabilitation and early mobilization in the critical patient: systematic review. *J Phys Ther Sci* 2018;30(9):1193-1201

This systematic review evaluated the effects of rehabilitation and early mobilisation for adults admitted to intensive care for more than 2 days. The authors searched five databases (Bibliotheca Virtual en Salud, CINAHL, PubMed, Scopus, and Web of Science) in order to identify randomized controlled trials, crossover trials, and case-control studies. Unfortunately there was no quantitative synthesis of the 11 included studies. The results of individual studies indicate that, compared to usual care, rehabilitation and early mobilisation increases the total distance walked at discharge. Marcelo says: "Rehabilitation and early mobilisation in intensive care looks promising, but more research is necessary to quantify the size of the treatment effect".

Nydahl P, et al. Safety of patient mobilization and rehabilitation in the intensive care unit: systematic review with meta-analysis. *Ann Am Thorac Soc* 2017;14(5):766-777

Safety concerns are a barrier to the widespread use of rehabilitation and early mobilisation in intensive care units. This systematic review synthesised safety events, including falls, removal of endotracheal tubes, removal or dysfunction of intravascular catheters, removal of other catheters/tubes, cardiac arrest, haemodynamic changes, and desaturation. 48 eligible studies evaluating 7,546 patients in 22,351 early mobilisation or rehabilitation sessions were included. Potential safety events occurred in 2.6% of sessions. Marcelo says: "This review reassures me that rehabilitation and early mobilisation in intensive care is safe. It would be really useful if future trials recorded safety events in a consistent way".

E. Support for PEDro comes from the American Physical Therapy Association, Deutscher Verband für Physiotherapie, Physio Austria, Physio Swiss and Associação Portuguesa de Fisioterapeutas

We thank the American Physical Therapy Association, Deutscher Verband für Physiotherapie, Physio

<u>Austria</u>, <u>Physio Swiss</u> and <u>Associação Portuguesa de Fisioterapeutas</u> who have just renewed their partnership with PEDro for another year.

F. Systematic review found that adding communication techniques did not improve objective physical activity measures in older people

This systematic review evaluated whether adding patient-therapist communication during physiotherapy treatment increased self-reported and objectively-measured physical activity levels in older adults. Randomised controlled trials and clinical controlled trials that investigated the effect of adding therapist communication interventions to exercise on physical activity measures, subjective and objective, in older people compared to exercise alone were included.

Outcomes were assessed at the end of the intervention, and up to 12 months after the intervention. The PEDro scale was used to rate risk of bias of the included trials. Self-reported and objectively collected data were analysed as two different outcomes. Meta-analysis was performed when at least three trials were included in a comparison. Altogether, 12 trials were included. Of these, 10 trials included older adults with musculoskeletal conditions, one trial included older people with chronic obstructive pulmonary disease, and one trial included people with stroke.

Objective measures of physical activity were walking speed, timed-up-and-go test, and muscle strength. Self-reported outcomes were motivation to be physically active, confidence to perform exercises, and minutes a day of physical functioning. The frequency of the interventions varied from daily to once per week over a period of 5 days to 9 months. Different behaviour change interventions were used as communication techniques, including credible source, social support, generalisation of the target behaviour, and goals and planning. Overall, communication techniques did not improve performancebased measures of physical activity (standardised mean difference 0.05, 95% CI -0.10 to 0.20), but improved self-reported measures of physical activity (standardised mean difference 0.19, 95% CI 0.07 to 0.31) at the end of the intervention. A similar pattern was observed for the analyses up to 12 months after the end of the intervention - communication techniques did not improve objective measures of physical activity (standardised mean difference 0.00, -0.22 to 0.21), but improved self-reported measures of physical activity (standardised mean difference 0.24, 95%CI 0.05 to 0.44). When interventions were grouped by behaviour change technique, there was no evidence of an effect of social support on objective measures (standardised mean difference -0.02, 95%CI 0.24 to 0.20). The generalisation of target behaviour technique improved self-reported measures of physical activity (standardised mean difference 0.34, 95% CI 0.05 to 0.63). Adding communication techniques based on behaviour change theory to physiotherapy exercise sessions for older people improved self-reported measures of physical activity but not objective measures of physical activity compared to exercise alone.

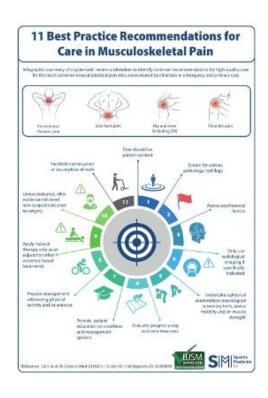
Lakke S, et al. The added value of therapist communication on the effect of physical therapy treatment in older adults; a systematic review and meta-analysis. *Patient Educ Couns* 2019;102(2):253-265

G. Systematic review identifies 11 consistent recommendations in evidence-based clinical practice guidelines for musculoskeletal pain

This systematic review evaluated recommendations for high-quality care for common musculoskeletal pain sites treated in emergency departments and primary care. Evidence-based clinical practice guidelines for adult musculoskeletal pain that were written in English and published since 2011 were included. Guidelines were excluded if they focussed on traumatic musculoskeletal pain, single modalities (eg, surgery), traditional medicine, and specific disease processes. Quality was evaluated using the Appraisal of Guidelines for Research and Evaluation II (AGREE-II) instrument. Guidelines scoring at least 50% in the rigour of development, editorial independence, and stakeholder involvement domains were included in the analyses. Recommendations from the included guidelines were extracted and coded.

There were 11 high-quality guidelines focussing on low back (n = 4), hip or knee (n = 4), neck (n = 2) and shoulder (n = 1) pain. These guidelines contained 11 consistent recommendations that can be used by healthcare consumers, clinicians, researchers and policy makers to improve the quality of care for musculoskeletal pain. The recommendations are:

- 1. Ensure care is patient centred
- 2. Screen for red flag conditions
- 3. Assess psychosocial factors
- 4. Use imaging selectively
- 5. Undertake a physical examination
- 6. Monitor patient progress
- 7. Provide education or information
- 8. Address physical activity or exercise
- 9. Use manual therapy only as an adjunct to other treatments
- 10. Offer high-quality non-surgical care prior to surgery
- 11. Try to keep patients at work.



A great <u>infographic</u> summarising these recommendations has been produced by the *British Journal of Sports Medicine*.

Lin I et al. What does best practice care for musculoskeletal pain look like? Eleven consistent recommendations from high-quality clinical practice guidelines: systematic review. *Br J Sports Med* 2019 Mar 2;Epub ahead of print

Read more on PEDro.

H. 13% of physiotherapy guidelines, reviews and trials include a plain-language summary

A plain-language summary is a short and clearly stated version of a study's results using non-scientific vocabulary. These summaries are useful for both patients and clinicians in the process of shared decision-making. A recent article investigated how commonly plain-language summaries were included in evidence-based clinical practice guidelines, systematic reviews and randomised controlled trials evaluating physiotherapy interventions. The secondary aims were to determine if the available plain-language summaries are at a suitable reading level for a lay person, if inclusion of plain-language summaries is increasing over time, and if the presence of plain-language summaries in trials is associated with trial quality (ie, total PEDro score).

All articles indexed in PEDro in the September 2016 update were included in the analyses (research method, plain-language summary, year of publication, total PEDro score). The proportion of articles containing plain-language summaries was calculated for all articles and then separately for guidelines, reviews and trials. The Flesch Reading Ease Score (range 0-100, higher scores indicate texts that are easier to read) for each plain-language summary was calculated using the Readability Score website. The number of plain-language summaries available each year was evaluated graphically. The total PEDro score of trials that do and do not include a plain-language summary were compared.

From a total of 34,444 articles indexed in PEDro, only 4,421 (13%) had English plain-language summaries – 2,803 were trials (10% of all trials), 1,588 were reviews (25% of all reviews), and 30 were guidelines (5% of all guidelines). The mean (standard deviation) Flesch Reading Ease Score was low: 21 (17) out of 100. Only 0.1% of plain-language summaries were considered a suitable reading level based on the Flesch

Reading Ease Score (ie, score 60-100 points). The number of published reports with a plain-language summary doubled between 2010 and 2016. Trials with plain-language summaries had higher total PEDro scores than trials without plain-language summaries (mean difference 0.8 out of 10 points, 95% confidence interval 0.7 to 0.8).

Although the publication of plain-language summaries is increasing over time, the current number corresponds to only 13% of all trials, reviews and guidelines evaluating physiotherapy interventions. The majority of plain-language summaries are written at an advanced reading level.

Carvalho FA, et al. Are plain-language summaries included in published reports of evidence about physiotherapy interventions? Analysis of 4421 randomised trials, systematic reviews and guidelines on the Physiotherapy Evidence Database (PEDro). *Physiotherapy* 2018 Nov 15:Epub ahead of print

I. PEDro 10,000 searches per day milestone!

PEDro has reached a new record for the average number of searches performed every day. In March 2019 over 10,000 searches per day were conducted. To answer your clinical question go to the <u>PEDro search page</u>. For more information about PEDro content and utilisation visit the <u>PEDro statistics page</u>.

J. Hear about PEDro's Evidence in your inbox at #ISPRM2019

The PEDro team will be presenting a paper entitled "Keeping up-to-date with clinical research: an evaluation of PEDro's Evidence in your inbox" at the 13th International Society of Physical and Rehabilitation Medicine World Congress in Kobe on 9-13 June 2019.

If you are attending the Congress please let us know. It would be great to catch up.

K. Next PEDro update (June 2019)

The next PEDro update is on Monday 3 June 2019.

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