A. PEDro update (4 February 2019)

PEDro contains 42,577 records. In the 4 February 2019 update you will find:

- 33,328 reports of randomised controlled trials (32,484 of these trials have confirmed ratings of methodological quality using the PEDro scale)
- 8,578 reports of systematic reviews, and
- 671 reports of evidence-based clinical practice guidelines.

PEDro was updated on 4 February 2019. For latest guidelines, reviews and trials in physiotherapy visit *Evidence in your inbox*.

B. PEDro is no longer posting to Google+

Last year Google announced the shutdown of Google+ for consumers due to its low usage and the challenges they had in creating and maintaining a platform that met the needs of their consumers. As a result of this, our last post for PEDro on Google+ was on be 22 January 2019.

We'd like to say thank you to everyone who has followed our Google+ page since August 2015. You can continue to receive updates from PEDro by following us on Facebook and Twitter, or you can subscribe to the PEDro newsletter.

C. Thank you to PEDro volunteers and staff during 2018

PEDro received assistance from a large number of volunteers during 2018. These physiotherapists have donated time and skills to confirm that articles are eligible for indexing in PEDro, apply search codes, an rate trials indexed in PEDro using the PEDro scale. We extend a big vote of thanks to: Adrian Traeger, Ana Cristina Castro Avila, Andrea Gardoni, Anna Valente, Anne Jahn, Antonella Daugenti, Apurva Shrivastava,

Bernadine Teng, Carlos Sanchez Medina, Charlotte Torp, Claudia Koeckritz, Claudia Sarno, Claudio Cordani, Crystian Oliveira, Daniele Emedoli, David Fernandez Hernando, Diego Poddighe, Elena Resnati, Elisa Ravizzotti, Elisabetta Bravini, Emily Dunlap, Etienne Soulet, Fereshteh Pourakzemi, Gabriel Farhat, Guloznur Karabicak, Ilkim Karakaya, Ivan Jurak, Jean-Philippe Regnaux, Jiaqi Zhang, Joshua Zadro, Julio Fernandes de Jesus, Junior Vitorino Fandim, Kathrin Fiedler, Laura Crowe-Owen, Leonardo Piano, Lorenzo Schiocchetto, Magdalena Rzewuska, Manuela Besomi, Marco da Roit, Maria Natividad Seisdedos Nunez, Matteo Gaucci, Matteo Locatelli, Mattia Di Meo, Mia Boye Nyvang, Michele Margelli, Michelle Liu, Michelle Lobo, Nicola Ferri, Nicolas Ferrara, Pedro Andreo, Ranganathan Arunmozhi, Riccardo Guarise, Robyn Porep, Roy Daniell, Sally Johnson-Chung, Sharon Parry, Simon Olivotto, Stefan Liebsch, Stefano Vercelli, Stephan Rostagno, Stephen Chan, Takayuki Miyamori, Tiziano Innocenti, Uwe Eggerickx, and Winifried Backhaus.

Several staff are employed to develop and maintain PEDro. The staff for 2018 include: Anne Moseley (Manager); Alla Melman (Research Officer); Courtney West (Administration); Connie Jensen, Emre Ilhan, Giovanni Ferreira, Johnny Kang, Jooeun Song, Lakshmi Jayalath, Nina Wang, Patricia Parreira, Swikriti Sharma, Theresa Ford, and Yen-Ning Lin (PEDro raters).

D. #MyPTArticleOfTheMonth resource - how to read a randomised controlled trial

Reading scientific articles reporting the results of randomised controlled trials is a skill that requires practice. This post provides four quick tips to help you get started.

TIP 1: understand how trials are laid out
The typical article reporting trial results will include the following elements: Title, Abstract, Introduction, Methods, Results, and Discussion. However, it is not necessary to read all these elements or to read them in this order. The most important elements are the Title and Abstract (to decide whether or not to read the article) and the Methods and Results sections (to get a detailed understanding of what was done and the main findings). A video by Sketchy EBM explains this very nicely.

TIP 2: skim-read specific sections of the article to decide whether or not to read the article
You need to confirm that the trial matches your information needs and has been conducted robustly. The information you need for this should be in the Title and Abstract. Unfortunately, not all articles are well written, so you may also need to dip into parts of the Methods and Results sections. The things to look for are (1) what the trial was about (the patient group, intervention, and key outcome measures), (2) how well the trial was done (was there random and concealed allocation to groups, blinding of outcome assessors, adequate follow-up, and intention-to-treat analysis?), and (3) clear reporting of results (the difference between the groups). PEDro can help you to quickly identify trials that are more likely to be well-conducted and clearly report results. This is because the trials indexed in PEDro have been pre-appraised using the PEDro scale. Trials with higher PEDro scores are more likely to be valid and contain sufficient data to guide clinical practice than those with lower scores.

TIP 3: focus your attention on specific aspects while you read the Methods and Results sections in

detail

If having skim-read the article you decide to read the paper more carefully, look for more detailed information about what the trial was about, how well the trial was done, and reporting of results than you gathered while skim reading. For the subjects, you need to understand the key characteristics required for inclusion in the trial and where they were recruited from – were the patients in the trial broadly similar to the patients you are treating? For the intervention, look for detailed descriptors of who, what, where, when and how much. Pay particular attention to the contrast (or distinctions) in treatment provided to the different groups in the trial. Trials are set up to test the effects of these contrasts in treatment – for example, in a trial comparing exercise and education to exercise only, the contrast is education and the trial is testing the effects of education (not the exercise provided to both groups). In addition to determining how subjects were allocated to groups, blinding of key people involved in the trial, completeness of follow-up and how the analyses were performed, also confirm that the trial was registered (eg, using the ISRCTN Registry) and that the number of subjects recruited was sufficient to provide a robust answer for the question. For the reporting of results, it is common for multiple outcome measures to be used and for the trialists to identify which they consider to be the most important (or primary) outcome. Look for the difference between the groups at the end of the treatment and follow-up phases for the primary outcome measure, any harmful effects and the costs of providing the intervention. The estimate of the between-group difference and its precision (ie, 95% confidence interval) are more informative than statistical significance (p values). If the primary outcome is a continuous variable (eg, pain, walking speed) look for the mean between-group difference and its confidence interval. If the primary outcome is a dichotomous variable (eg, return to work) look for the relative risk reduction or odds ratio and its 95% confidence interval.

TIP 4: seek out more information

If you decide that the intervention has large enough effects to make it worthwhile to apply in clinical practice you will probably need to find out more about the intervention than was provided within the word restrictions of the article. Many trials now publish protocols and maintain web-sites that provide this information.

Your ability to read scientific articles reporting the results of randomised controlled trials 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.

E. PEDro #MyPTArticleOfTheMonth challenge spreads to French- and Portuguese-speaking physiotherapists

Many physiotherapists have signed up for the #MyPTArticleOfTheMonth challenge and have started sharing their reading with the global physiotherapy community. We invite all physiotherapists to join in the challenge.

To support this global challenge, the PEDro #MyPTArticleOfTheMonth video is now available in [Portuguese](#) and [French](#).

PEDro acknowledges the contributions of Amabile Borges Dario and Aurélie Morichon, who translated and recorded the Portuguese and French videos, respectively. Amabile is from The University of Sydney. Aurélie is from the Société Française de Physiothérapie.

Don't forget to share your reading with the global physiotherapy community by using the hashtag #MyPTArticleOfTheMonth on Twitter or Facebook.

F. #MyPTArticleOfTheMonth – what is Emma K Stokes reading?

Emma K Stokes is an Associate Professor in the [Department of Physiotherapy at Trinity College Dublin](#), the Head of the Physical Therapy Program at Qatar University, the President of the [World Confederation for Physical Therapy](#), and a professional (executive and leadership) coach. Guiding new developments and delivering leadership courses are prominent features of these roles. Like in clinical practice, the results of high-quality research are critical for informing this work.

Emma browses every issue of the *[Harvard Business Review](#)* because it is a great knowledge translation journal, with many authors writing about their primary research in a way that translates it for those who wish to use the findings in their work. An article in the September-October 2018 issue entitled "[Give yourself a break: the power of self-compassion](#)" motivated Emma to read the primary research article for her #MyPTArticleOfTheMonth.

[Zhang JW, Chen S. Self-compassion promotes personal improvement from regret experiences via acceptance. *Pers Soc Psychol Bull* 2016;42(2):244-58](#)

In this article Zhang and Chen report the results of three research studies exploring how we learn from regret experiences and how taking a self-compassion mindset when considering regret experiences can lead to more personal growth. Overall, the results suggest that self-compassion spurs positive adjustment in the face of regrets.

Emma says "the studies utilised diverse research methods that were clearly reported, minimise bias, and

clearly outline the limitations. I judged the research to be high-quality, relevant and informative for my work. I will use the results in my leadership workshops when referring to self-compassion. The results will also inform my professional reflective writing and how I work with colleagues as they consider set-backs or failures."

Emma's take home message is: "when we are confronted with failure or set-backs (regret experiences) we should try to take a self-compassionate approach while accepting our regrets and acknowledging that shortcomings and failures are a shared human experience. This approach will allow for more personal growth and development."

G. The 20 most accessed articles in PEDro during 2018

PEDro user users can 'view' records to obtain detailed information about the article, including the abstract, PEDro ratings and links to full-text. They can also 'select' records to be added to a list that can then be emailed or exported in EndNote format. We tallied the most frequently viewed and selected records in PEDro during 2018. Some interesting trends were observed.

Of the 20 most accessed records in 2018, 95% were synthesis research (guidelines and reviews). With the high volume of published research in physiotherapy, reading evidence-based clinical practice guidelines and systematic reviews is a fantastic way to keep up to date in your field. 75% of the most accessed records were guidelines.

Low back pain is a significant and highly debated area of practice in physiotherapy. The three most accessed records (averaging 3,000 views each), and 25% of the 20 most accessed records overall, evaluated physiotherapy interventions for low back pain. 90% of the most accessed records were in the area of musculoskeletal and sports physiotherapy; with 7/20 regarding spinal pain, 4/20 shoulder dysfunction, and 6/20 lower limb injuries and osteoarthritis. Guidelines for stroke rehabilitation comprised the remaining 10% of the 20 most accessed records.

The 20 most accessed records included one clinical trial. The trial had good methodological quality (scoring 10/10 on the PEDro scale) and evaluated electrophysical agents for the treatment of adhesive capsulitis.

The full list of the 20 most accessed PEDro records during 2018 is in the table below.

Title	Method	Number of accesses
Noninvasive treatments for acute, subacute, and chronic low back pain: a clinical practice guideline from the American College of Physicians	practice guideline	3,163
National clinical guidelines for non-surgical treatment of patients with recent onset low back pain or lumbar radiculopathy	practice guideline	3,086
Low back pain clinical practice guidelines linked to the International Classification of Functioning, Disability, and Health from the Orthopaedic Section of the American Physical Therapy Association [with consumer summary]	practice guideline	2,816

Guideline for diagnosis and treatment of subacromial pain syndrome	practice guideline	2,619
Clinical practice guideline for physical therapy assessment and treatment in patients with nonspecific neck pain	practice guideline	2,490
Knee stability and movement coordination impairments: knee ligament sprain	practice guideline	2,328
Guideline for the management of knee and hip osteoarthritis (second edition) [with consumer summary]	practice guideline	2,226
Evidence-informed primary care management of low back pain	practice guideline	2,135
Physical activity and exercise for chronic pain in adults: an overview of Cochrane Reviews (Cochrane review) [with consumer summary]	systematic review	2,128
Manual therapy and exercise for adhesive capsulitis (frozen shoulder) (Cochrane review) [with consumer summary]	systematic review	2,028
Evidence-based concepts for prevention of knee and ACL injuries. 2017 guidelines of the ligament committee of the German Knee Society (DKG)	practice guideline	1,952
2016 SOSORT guidelines: orthopaedic and rehabilitation treatment of idiopathic scoliosis during growth	practice guideline	1,950
Achilles pain, stiffness, and muscle power deficits: midportion Achilles tendinopathy revision 2018	practice guideline	1,874
Low back pain and radicular pain: evaluation and management	practice guideline	1,851
Manual therapy and exercise for rotator cuff disease (Cochrane review) [with consumer summary]	systematic review	1,776
Surgical versus conservative interventions for treating anterior cruciate ligament injuries (Cochrane review) [with consumer summary]	systematic review	1,741
Clinical guidelines for stroke management	practice guideline	1,741
Physiotherapy in hip and knee osteoarthritis: development of a practice guideline concerning initial assessment, treatment and evaluation	practice guideline	1,689
Does ultrasound therapy add to the effects of exercise and mobilization in frozen shoulder? A pilot randomized double-blind clinical trial	clinical trial	1,572
Guidelines for adult stroke rehabilitation and recovery: a guideline for healthcare professionals from the American Heart Association/American Stroke Association	practice guideline	1,512

H. Systematic review found that seated exercises improve cognition in older adults with chronic health conditions

This systematic review evaluates the effect of seated exercise on impairment, activity and participation levels of older adults living with a health condition or impairment. This review included trials evaluating seated exercises of various types (eg, resistance, flexibility, range of motion, balance) in people over 65 years of age compared to other exercises or usual care. Methodological quality was evaluated with the PEDro scale, and the quality of evidence of each meta-analysis was assessed using the Grades of Research, Assessment,

Development and Evaluation (GRADE) approach. Fourteen trials (n = 921 participants) were included. All outcomes classified by the International Classification of Functioning were considered for this review. The sample was predominantly composed of women. Most studies (n = 9) were considered high quality. Most trials (n = 10) were conducted in residential care facilities or day care centres. The most common intervention was progressive resistance training compared to usual care or social activities. Duration of interventions ranged from six weeks to seven months, with most spanning twelve weeks. Meta-analysis of four trials (n = 141 participants) provided low-quality evidence that seated exercise had a large positive effect on cognition when compared to usual care or social activity (standardised mean difference 1.20, 95% CI 0.25 to 2.16). Meta-analysis of three trials (n = 158 participants) provided moderate quality evidence that seated exercise, compared to social activities, did not have an effect on balance (standardised mean difference 0.13, 95% CI -0.19 to 0.44). Meta-analysis of 3 trials (n = 45 participants) provided low quality evidence that seated exercise did not have an effect on activity as assessed by Timed Up and Go Test (standardised mean difference 0.28, 95% CI -1.08 to 1.63) compared to social activities. In older adults with chronic health conditions, seated exercise was better than usual care to improve cognition, but no better than social activities in improving balance and activity.

Sexton BP, et al. To sit or not to sit? A systematic review and meta-analysis of seated exercise for older adults. *Australas J Ageing* 2018 Dec 13:Epub ahead of print

Read more on PEDro.

I. PEDro searching has improved over time

When searching a database like PEDro, the results can only be as precise as the search terms used. The more sophisticated and specific the search is, the more relevant the resulting articles will be. For busy clinicians, using time to effectively identify relevant articles is vital. In order to improve the user experience, PEDro provides video tutorials on how to structure a search. Pop-up messages are also provided for common search errors (eg, using Boolean operators).

A recent paper analysed the content of PEDro searches to evaluate whether search quality has improved since the error messages and tutorials were implemented. Utilising data sourced from Google Analytics, the investigators compared search terms entered by users over a 6-month period in 2014-2015 to the same time period in 2017-2018. The study found a very small increase in the use of sophisticated search features (eg, truncation) and small reductions in search errors (eg, using non-ASCII characters). Overall in 2017-2018, only 6% of simple and 9% of advanced search commands used sophisticated features, while 16% of simple and 12% of advanced search commands contained errors. The content of PEDro search commands was largely similar to searches from 2014-2015. These small improvements may be due to availability of video tutorials on how to optimise searching and warnings that appear when users enter search commands containing errors. However, additional strategies to improve the quality of searches are needed.

We encourage PEDro users to think about the question they are asking before starting a search and to take

advantage of the Advanced search page. Tips on formulating a clinical question are available in the PEDro "how to ask a clinical question in PICO format" tutorial. The Advanced search page includes 13 fields for entering your search terms that could help make your search more specific. For help with using the Advanced search page you can watch the "how to perform a PEDro advanced search" and "how to optimise PEDro searching" videos. These tutorials and videos are available in multiple languages on the PEDro web-site.

Zadro JR, et al. PEDro searching has improved over time: a comparison of search commands from two six-month periods three years apart. *Int J Med Inform* 2019;121:1-9

J. Next PEDro update (March 2019)

The next PEDro update is on Monday 4 March 2019.