



A. PEDro update (8 January 2019)

PEDro contains 42,289 records. In the 8 January 2019 update you will find:

- 33,118 reports of randomised controlled trials (32,286 of these trials have confirmed ratings of methodological quality using the PEDro scale)
- 8,499 reports of systematic reviews, and
- 672 reports of evidence-based clinical practice guidelines.

For latest guidelines, reviews and trials in physiotherapy visit [Evidence in your inbox](#).

B. Register now for the *Research in the clinical setting: understanding and applying randomised trials* course at WCPT 2019

The [World Confederation for Physical Therapy \(WCPT\) Congress 2019](#) will be held in Geneva on 10-13 May 2019. As a WCPT Professional Partner, PEDro will be participating in the Congress exhibition and scientific program. This includes running a post-congress course on 14 May 2019.

January 2019 is your last chance to register for a half day post-congress course entitled [Research in the clinical setting: understanding and applying randomised trials](#). In the course, participants will develop knowledge and skills in using randomised controlled trials to guide clinical practice. The value of randomised trials will be explored. We will delve into some key design features used in trials, including random allocation, concealed allocation, intention to treat analysis, reporting of between-group comparisons, and blinding of therapists, subjects and assessors. Participants will gain practical experience in reading and appraising published reports of trials, considering features such as their methodological quality and the precision of the trial's

estimates of the treatment effect. Participants will also practise explaining the trial's results to patients in terms that they will understand in order to foster joint clinical decision-making.

The speakers are Anne Moseley, Jean-Philip Regnaud, Jan Mehrholz, Antonia Gómez Conesa, and Lucíola Menezes Costa. The workshop will actively engage conference delegates from around the globe by offering the discussion and practical content in five languages (English, French, German, Spanish and Portuguese).

To register, visit: <https://www.wcpt.org/wcpt2019>.

C. #MyPTArticleOfTheMonth resource – PEDro's *Evidence in your inbox*

One way of keeping up-to-date with high quality clinical research relevant to your area of practice is to scan journals. However, with over 3,900 journals publishing physiotherapy research, traditional ways of keeping up-to-date can be costly (e.g., journal subscriptions) and time consuming (e.g., visiting libraries, scanning through journal tables of contents). These traditional methods also make it difficult to filter research based on quality and relevance and, in the life of a busy clinician, these factors can become large barriers to keeping up-to-date with the latest research.

PEDro's [*Evidence in your inbox*](#) is a solution for busy clinicians wanting to keep up-to-date with research about the effects of physiotherapy interventions. All randomised controlled trials, systematic reviews and guidelines relevant to your area of practice are listed in one place, the quality of trials is summarised using the PEDro scale, and articles are ordered by type (guidelines, reviews then trials) and trial quality (highest to lowest). [*Evidence in your inbox*](#) is available for 15 different areas of practice: cardiothoracics, continence and women's health, ergonomics and occupational health, gerontology, musculoskeletal, neurology, oncology, orthopaedics, paediatrics, sports, cerebral palsy, chronic pain, chronic respiratory disease, neurotrauma, and whiplash. Every month subscribers to PEDro's [*Evidence in your inbox*](#) receive an email message containing the latest research for each area of practice they subscribe to. Importantly, subscription is free!

[*Evidence in your inbox*](#) can be used to identify articles to read for the #MyPTArticleOfTheMonth challenge. If you are just starting out, we strongly recommend subscribing to a single feed, then making a point of opening the message each time PEDro is updated. One strategy would be to read the list of titles and decide whether there is something worth reading. Once you have selected an article relevant to your practice, click through to read the abstract and use the

hyperlinks provided in PEDro to obtain a full-text copy of the paper. Then read the full paper.

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

D. #MyPTArticleOfTheMonth – what is Lorimer Moseley reading?



Lorimer Moseley is a Pain Scientist with a background in physiotherapy who is the University of South Australia's Inaugural Chair in Physiotherapy and Professor of Clinical Neurosciences. He chairs the [PainAdelaide Stakeholders' Consortium](#) and leads the [Body in Mind Research Group](#). Lorimer is passionate about the role of the brain and mind in persistent pain. His work includes fantastic consumer resources like [Tame the Beast](#), which is the source of the image used in this post.

Lorimer's research work covers a broad spectrum, from theoretical/basic to clinical. He has shared two articles that he has read this month that reflect the scope of his research work.

[Gottlieb J, et al. Towards a neuroscience of active sampling and curiosity. *Nat Rev Neurosci* 2018;19:758-70](#)

The first article is from the theoretical/basic end of the spectrum that he spotted in a table of contents alert from one of his favourite journals. Lorimer says: "I am reading this because I am naturally curious and I have often wondered if poor recovery from pain is associated with other evidence of a nervous system unprepared to 'take a risk.' On reading this paper, I wonder if active sampling and curiosity might, at an implicit level, improve one's recovery after an episode of pain ... we will chew this stuff over until a new idea for an experiment to test this emerges."

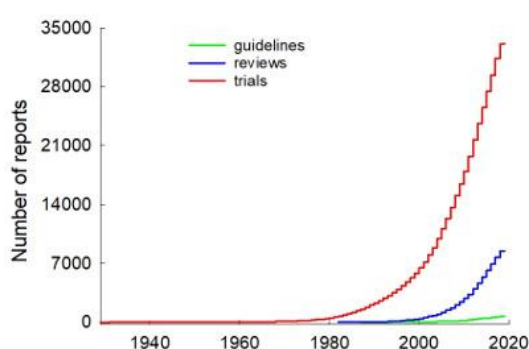
[Mazereeuw G, et al. Depression in chronic pain might opioids be responsible? *Pain* 2018;159\(11\):2142-5](#)

The second article is from the clinical end of the spectrum and presents an interesting argument about the potential role of opioids in pain-related depression. Lorimer chose this article because it is co-authored by an author he follows (Mark Sullivan). Lorimer says: "Depression and persistent pain are comfortable bedfellows and understanding their tight relationship should help us treat them both better. The argument presented in this paper is based on three points: (i) there is a dose-dependent relationship between opioids and depression (the more you take, the more likely

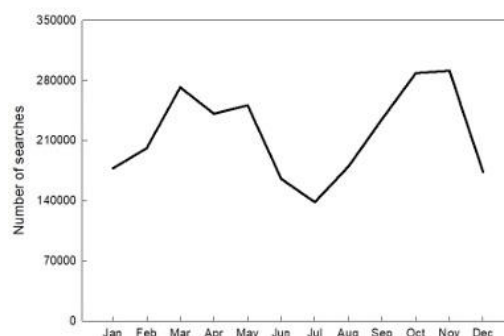
you are to be depressed), (ii) there is a duration-dependent relationship between opioids and depression (the longer you take them, the more likely you are to get depression), and (iii) reducing your opioids seems to reduce your depression too. It is an interesting, and unproven, hypothesis. At worst, it is another reason to get off the opioids. At best, it will change how we understand and treat depression in people with persistent pain.”

E. Who used PEDro in 2018?

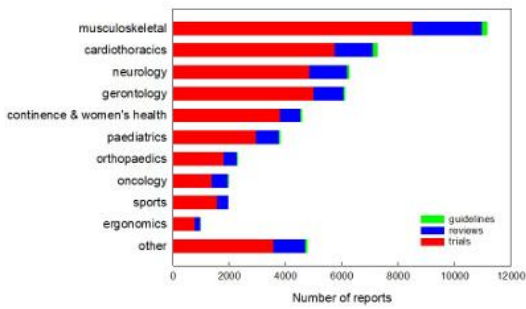
An analysis of the contents of PEDro in the 8 January 2019 update is now available on the [PEDro statistics page](#).



The number of reports of trials has continued to expand at an exponential rate.

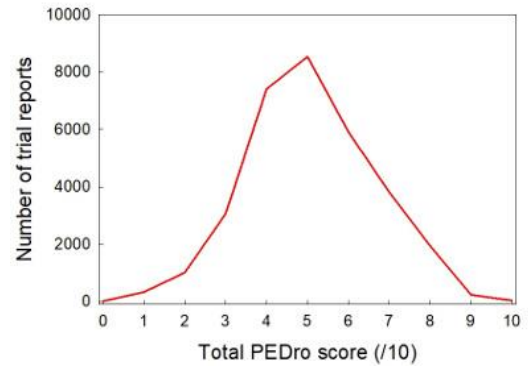


During 2018 PEDro was used to answer 2,616,667 questions. This means that a new search was initiated every 12 seconds, on average, during 2018. PEDro users were from 213 countries. The five countries with the highest usage in 2018 were the Brazil (22%), United States of America (10%), Spain (8%), Australia (7%), and France (5%).



Musculoskeletal and cardiothoracic physiotherapy have the largest quantity of trials, reviews and guidelines indexed on PEDro.

For all trial reports indexed on PEDro, the average total PEDro score is 5.1 (standard deviation 1.5). 37% of trial reports are of moderate to high quality, scoring $\geq 6/10$ on the PEDro scale.



F. The PREVENT trial: a trial of 202 adults with acute low back pain showed that adding intensive patient education to first-line care was no better at improving pain outcomes than a placebo

Acute low back pain is extremely common, most adults will experience at least one episode in their lifetime. Back pain is the leading cause of disability worldwide. Various psychosocial risk factors have been identified to help predict who may develop chronic back pain following an initial acute episode. These can include workplace and general stress and anxiety, as well as catastrophisation. Pain education involves explanation about the neurophysiology of pain and potential sensitisation of the nervous system, and suggests strategies to reduce the sensitisation process through self-management techniques. Current clinical guidelines advise early intensive pain education provided by trained professionals for those identified as high risk for chronicity could prevent development of chronic back pain.

The Preventing Chronic Low Back Pain (PREVENT) trial recruited 202 participants from primary care identified as having acute low back pain as well as a high risk of chronicity using the Predicting the Inception of Chronic Pain (PICKUP) tool. PREVENT compared Pain Education (early specialised care for 2x1 hour sessions) to a Placebo Control (active listening, but without information or advice, for 2x1 hour sessions). Participants also had their 'usual care' from their regular health practitioners. Pain intensity during the last week measured using an 11-point numerical rating scale, the primary outcome, was evaluated at 1 week and at 3 (primary time point), 6 and 12 months.

At 3 months, there was no difference in pain intensity between the two groups (mean difference - 0.3; 95% CI -1.0 to 0.3). Compared to the Placebo Control, the Pain Education group sought less healthcare at 3-months (odds ratio 0.43; 95% CI 0.19 to 0.93) and had lower recurrence of low back pain at 12 months (odds ratio 0.44; 95% CI 0.24 to 0.82). These secondary outcomes could have important health economic implications. This trial highlights the need for judicious use of clinical resources. Further work is needed to develop methods to change beliefs and attitudes about pain and disability in this high-risk cohort. If pain education alone does not make a significant difference, what other strategies can reduce risk of chronicity? Perhaps the 'placebo' active listening, a feeling of 'being heard,' is in fact therapeutic?

[Listen to Norman Swan interview Adrian Traeger](#) (postdoctoral research fellow from the Institute for Musculoskeletal Health, University of Sydney who is the lead author of the PREVENT trial) for ABC Radio National's Health Report.

Traeger AC, et al. Effect of intensive patient education vs placebo patient education on outcomes in patients with acute low back pain -- a randomized clinical trial. *JAMA Neurol* 2018 Nov 5;Epub ahead of print

[Read more on PEDro.](#)

G. Systematic review found that centre-based cardiac rehabilitation reduced all-cause mortality in people with coronary heart disease

The aim of this network meta-analysis was to evaluate the effectiveness of centre-based, home-based and telephone-based cardiac rehabilitation in people with coronary heart disease. This review included randomized controlled trials of adult patients (18 years and older) with coronary heart disease that compared exercise-based cardiac rehabilitation with other cardiac rehabilitation modalities or usual care. Exercise-based cardiac rehabilitation modalities were classified as centre-based (cardiac rehabilitation undertaken in a hospital or centre with equivalent structure), home-based (cardiac rehabilitation undertaken at patients' home or facilities other than hospitals, such as community centres) or telephone-based rehabilitation (cardiac rehabilitation undertaken at patients' home but monitored and guided by health professionals using telehealth technologies). Risk of bias was assessed using the Cochrane risk of bias tool. Primary outcome was all-cause mortality. Pairwise meta-analysis were performed first to estimate the direct effect of the exercise-based interventions. Subsequently, a network meta-analysis was performed. In total, 60 randomised controlled trials were included (n = 19,411). Only half of the

studies reported details of the exercise programs (types of exercise, frequency, lengths of sessions and duration of rehabilitation). Findings from the network meta-analysis showed that only centre-based cardiac rehabilitation significantly reduced all-cause mortality compared to usual care (relative risk 0.76, 95% CI 0.64 to 0.90), while the other types of cardiac rehabilitation were not significantly different from usual care with regard to mortality: home-based versus usual care (relative risk 0.86, 95% CI 0.55 to 1.33); telephone-based versus usual care (relative risk 0.97, 95% CI 0.62 to 1.52). This network meta-analysis showed that centre-based cardiac rehabilitation is the most appropriate therapeutic approach for patients with coronary heart disease.

Xia T-L, et al. Efficacy of different types of exercise-based cardiac rehabilitation on coronary heart disease: a network meta-analysis. *J Gen Intern Med* 2018;33(12):2201-9

[Read more on PEDro.](#)

H. Use of confidence intervals is increasing steadily in reports of physiotherapy trials

Critical appraisal of reports of randomised controlled trials is a core element of evidence-based practice. When considering whether to use an intervention with a patient, clinicians are encouraged to consider the estimate of the size of the treatment effect of the intervention. Confidence intervals can be used to estimate of the effect of an intervention. Most often the 95% confidence interval is used, this is the interval within which we can be 95% confident that the true average effect of the intervention actually lies. But how commonly are 95% confidence intervals used in published reports of randomised controlled trials evaluating physiotherapy interventions? A recent observational study has answered this question. The study evaluated 200 trials randomly selected from the Physiotherapy Evidence Database: 50 from each of the years 1986, 1996, 2006, and 2016. The primary outcome was the prevalence of the between-group difference presented with 95% confidence intervals. The overall prevalence of use of confidence intervals was 29%. There was a consistent increase in reporting of confidence intervals between 1986 (2%) and 2016 (42%). While the majority of trials of physiotherapy interventions do not report confidence intervals, use of confidence intervals is increasing steadily. Increased reporting of confidence intervals will assist physiotherapists to use the results of randomised controlled trials to inform clinical practice.

[Freire APCF, et al. Use of 95% confidence intervals in the reporting of between-group differences](#)

[in randomized controlled trials: analysis of a representative sample of 200 physical therapy trials.](#)

[Braz J Phys Ther 2018 Oct 16;Epub ahead of print](#)

I. Next PEDro update (February 2019)

The next PEDro update is on Monday 4 February 2019.



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