

Editorial

Reasons to become a volunteer rater for the Physiotherapy Evidence Database (PEDro)

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Evidence-based physiotherapy involves integrating the clinician's practice knowledge and the patient's preferences with high-quality clinical research about the effects of clinical interventions.¹ High-quality clinical research minimises biases by using rigorous study designs such as randomised trials. Although most physiotherapists recognise that evidence-informed clinical decision-making is essential, there are many barriers to accessing high-quality clinical research.^{2–4} The Physiotherapy Evidence Database (PEDro) is a database that can help physiotherapists access the least biased evidence to inform their clinical decision-making.^{3,5} This editorial describes PEDro, the role of PEDro raters and the process of becoming a volunteer PEDro rater.

Physiotherapy Evidence Database

Launched in 1999, PEDro is now an eminent global resource, providing rapid access to high-quality clinical research across all subdisciplines of physiotherapy. PEDro is considered the most comprehensive resource to search for research into the effects of physiotherapy interventions.^{5–8} It indexes randomised trials of physiotherapy interventions, systematic reviews of such trials, and evidence-based clinical practice guidelines. These types of research are identified using sensitive search strategies without restriction by the language or journal of publication (<https://pedro.org.au/english/learn/faq/question1>). If they meet the criteria for inclusion, they are then indexed in PEDro (<https://pedro.org.au/english/learn/indexing-criteria-and-codes/>). A unique feature of PEDro is that all indexed trials are rated for methodological quality by at least two PEDro-trained raters. Raters use the PEDro scale to assess the quality of the article out of a score of 10, so that PEDro users can quickly identify the trials that are likely to be valid and provide sufficient data to guide clinical decision-making. PEDro currently provides links to free full-text access for about 60% of the research it indexes.³

The PEDro database has shown exponential growth in the number of research articles indexed over time (Figure 1). Thousands of articles are indexed for each subdiscipline of physiotherapy, with the highest proportions in the musculoskeletal, cardiothoracic and neurological subdisciplines (<https://pedro.org.au/english/learn/pedro-statistics/>). In August 2022, PEDro had 55,812 indexed articles, comprising 42,673 randomised trials, 12,418 systematic reviews and 721 clinical practice guidelines.⁹

What do PEDro raters do?

During the past two decades, over 41,000 randomised trials indexed in PEDro have been quality rated.⁹ This has been achieved by a collaboration of volunteer PEDro raters from around the world.

PEDro raters are primarily physiotherapy clinicians, educators and students who have undertaken training and demonstrated proficiency in using the PEDro scale. A key task performed by these volunteers is to help rate the indexed trials, to assist users to quickly appraise each trial's validity and the completeness of reporting of its results. Over the past decade, the number of active volunteer raters has increased four-fold. PEDro had 25 volunteer raters in 2013 and this increased to 99 in 2022 (Figure 2).

What are the benefits of being a rater for PEDro?

Numerous reasons can inspire someone to be a PEDro volunteer rater. Being a PEDro rater allows the individual to contribute to the worldwide research community and a multinational educational initiative from any location and at any time. There are some advantages of being a PEDro rater that apply to all volunteers and other advantages that are applicable to students, bilingual volunteers, and those in research and clinical roles (Box 1).

For students, being a trained rater can enhance academic reading skills and help develop excellent critical thinking. This process may speed up the student's development as a healthcare professional or future researcher. It can also supply the student with more research ideas and equip them with appraisal skills.

For clinicians, being a rater can provide a critical lens for understanding the complexity and generalisability of the research and how it applies to a patient's health. Regular rating may transform a barrier into a facilitator by increasing familiarity with research jargon and improving reading skills, which may be particularly important for volunteers from non-English-speaking countries. Regular rating may also help clinicians to solidify their own clinical questions and update their knowledge with current evidence. It may also improve their skills in critical appraisal, knowledge of research methodologies, and ability to bring the best evidence to clinical practice. As such this increases the empowerment and autonomy of the clinician.

For researchers, regular use of the PEDro scale can develop enhanced appraisal skills and improve knowledge of research methods, hopefully leading them to avoid common mistakes. For some researchers, it may help to avoid common errors in assessing the methodological quality of trials included in systematic reviews. PEDro rater training can help researchers to optimise the design and conduct of their research and to communicate their research transparently and completely. By keeping abreast of recently published evidence, researchers can better focus on generating evidence that is centred on patient needs and priorities, thereby reducing research waste.

In some countries, physiotherapists' access to high-quality research in physiotherapy may be limited by the fact that most

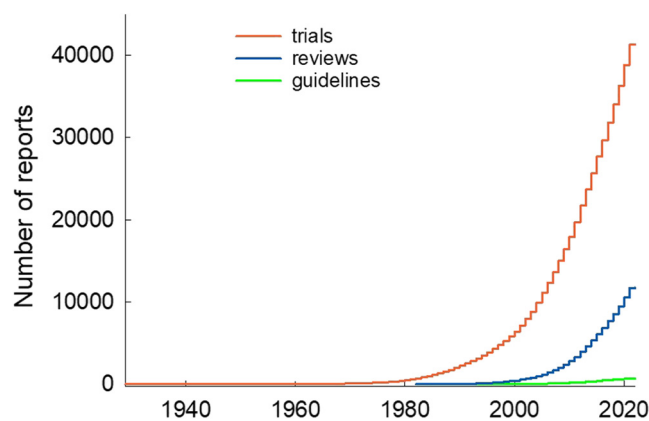


Figure 1. The cumulative number of trials, reviews and guidelines indexed on the Physiotherapy Evidence Database (PEDro).

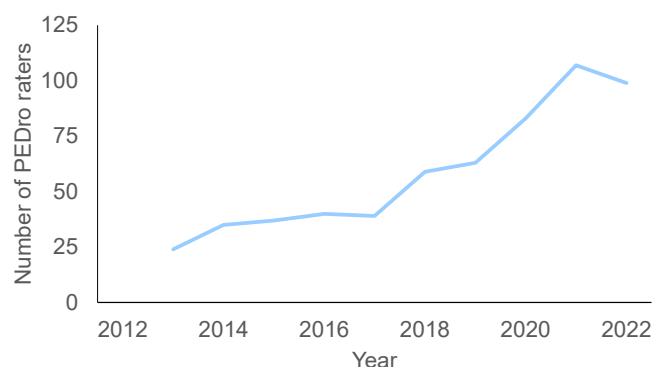


Figure 2. The number of active Physiotherapy Evidence Database (PEDro) volunteer raters each year.

research is published in English. This may also mean that they must use evidence that has been generated in other countries, which may not always be appropriate to their local culture or healthcare system. Bilingual volunteer PEDro raters have the chance to assess the methodological quality of non-English-language trials and thereby facilitate decision-making in countries with languages other than English. Additionally, as the profession tackles extensive research waste, predatory journals and massive pre-print research, it is vitally important that we appraise all published evidence and not merely that published in English.

Together to make a difference

One of the great motivations to be a volunteer PEDro rater is to contribute to the strengthening of evidence-based physiotherapy around the world, which is a necessary goal for the profession. For example, only 42% of physiotherapists reported having a clear understanding of the use of research findings in clinical practice.¹⁰ Also, the evidence-based practice training provided at the undergraduate level may be insufficient.¹⁰ Some healthcare systems and healthcare organisation websites may make recommendations that are not aligned with the available evidence.¹¹ Some healthcare professionals are unaware of the benefits of evidence-based practice and have a misconception about how evidence-based practice works. One way to overcome this problem is to support freely accessible educational initiatives dedicated to strengthening evidence-based practice, such as PEDro.

How to become a PEDro volunteer rater

Online rating training program

To become a PEDro rater, you must demonstrate proficiency with the PEDro scale. PEDro now offers an online training program for

Box 1. Benefits obtained from being a volunteer PEDro rater.

Benefits relevant to all raters

- Keep up to date with new clinically relevant research in your area(s) of interest
- Enhance your ability to quickly appraise research into physiotherapy interventions
- Receive training in how to apply the PEDro scale
- Receive confirmation of your competence with the PEDro scale
- Develop a greater understanding of research methods
- Reinforce that physiotherapy is an evidence-based profession
- Guide physiotherapists, other healthcare professionals and other users towards better evidence
- Contribute to a non-profit initiative that supports better patient management globally

Additional benefits for clinicians

- Learn about new research to improve your own management of patients
- Maintain a database of evidence to help inform your clinical practice
- Prove your time spent on professional development or continuing education
- Increase your autonomy to identify effective interventions
- Demonstrate the efficacy of your clinical interventions to funders

Additional benefits for researchers

- Keep abreast of new research relevant to your own research
- Help maintain a comprehensive database of trials for systematic reviews
- Identify when new trials make a topic suitable for a systematic review
- Ensure you can use the PEDro scale correctly in your own systematic reviews
- Learn how to achieve each item on the PEDro scale with your own trials
- Learn how to report your trials' methodology unambiguously

Additional benefits for students

- Increase your knowledge of new research in the profession
- Enhance your critical thinking skills and your understanding of research jargon
- Generate your own ideas and independence to respond to clinical questions
- Practise some of the steps of evidence-based physiotherapy for use on clinical placements
- Know which interventions are not supported by evidence
- Gain a comprehensive view of the breadth of clinical physiotherapy practice

Additional benefits for bilingual raters

- Promote awareness of physiotherapy research published in languages other than English
- Ensure PEDro recognises the breadth of international clinical physiotherapy practice
- Support a non-profit organisation to strengthen evidence used around the world

physiotherapists, other healthcare professionals and students who want to improve their appraisal skills. The online PEDro scale training program may be completed at your own pace no matter where you live.

The PEDro scale summarises the methodological quality and completeness of statistical reporting in published clinical trials.¹² The PEDro scale comprises 11 items, 10 of which contribute to the total PEDro score (range 0 to 10 points), which is used to rank search results when users search the database.¹³ The online PEDro scale training program is available in English and Portuguese. Each subscription is valid for 3 months for a single user. The program provides step-by-step training with instructional videos, real-world examples, appraisal practice and feedback. Subscribers who pass the final

accuracy exam receive a certificate. More details can be accessed at the PEDro training website (<https://training.pedro.org.au/>).

Volunteering as a PEDro rater

You will be invited to be a PEDro rater after demonstrating proficiency in using the PEDro scale by passing the PEDro training program accuracy test. Volunteer PEDro raters can select their preferred subdiscipline or area of physiotherapy practice, rate trials in other languages in which they may have proficiency and nominate how many trials to rate each month. All rating is performed using a password-protected website and can be done from anywhere in the world. The assessment of one trial using the PEDro scale usually takes 5 to 20 minutes, depending on the complexity of the article and the rater's level of experience.

In conclusion, PEDro helps physiotherapists and other users to efficiently identify high-quality clinical research about the effects of physiotherapy interventions. This research is accumulating rapidly so volunteer raters are needed if PEDro is to be maintained. PEDro provides an online training program for interested volunteers and others to learn to use the rating scale. Each PEDro volunteer rater has individual characteristics and expertise, but all volunteers are proud to support PEDro to keep strengthening evidence-based physiotherapy practice around the world. Rating is made as flexible as possible for volunteers. Working together, we all make a difference by sustaining this valuable resource.

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Websites

PEDro website <https://pedro.org.au>

PEDro scale training program <https://training.pedro.org.au>