

Tackling the methodological issues of evidence production in rehabilitation: the role of Cochrane Rehabilitation

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Background

Rehabilitation interventions are usually complex and this complexity introduces many methodological challenges in the development of high quality scientific evidence for clinical practice.

Purpose

One of the aims of Cochrane Rehabilitation (CR) is to improve the quality of methodology in rehabilitation research.

Methods

The CR methodology committee applied and received a Catalyst Grant from New Zealand to schedule an international multi-professional meeting between methodologists and clinical experts in rehabilitation. The aim of the “Catalyst Meeting” was to produce a discussion around some of the main methodological issues in rehabilitation research and to define the research lines to improve the quality of evidence in the field.



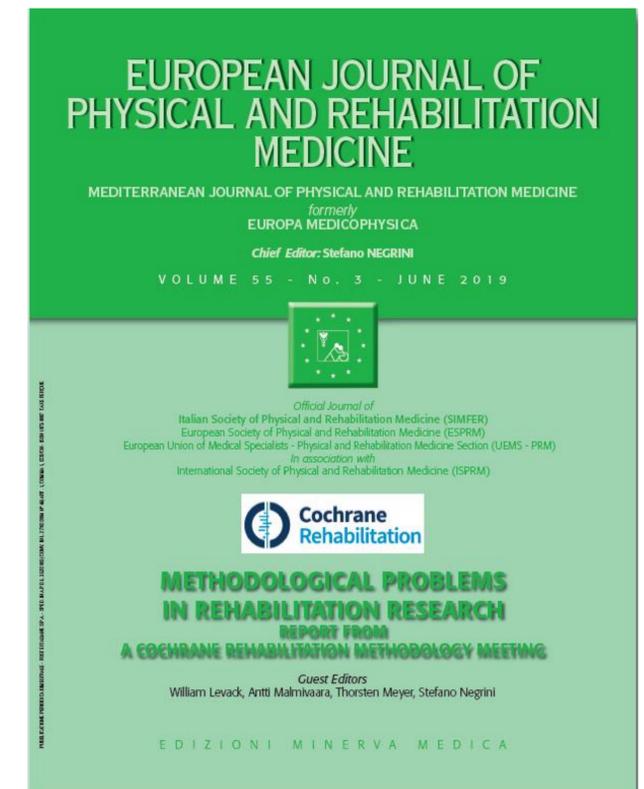
Results

The Catalyst Meeting was held in July 2018 in Paris. During the meeting, papers on methodology in rehabilitation were presented on these topics:

1. the use of pairwise comparison methods as a structured approach to prioritization of rehabilitation reviews within international groups;
2. optimizing the real world impact of rehabilitation reviews;
3. the replicability of randomized controlled trials in everyday physical and rehabilitation medicine clinics;
4. reporting standards for rehabilitation interventions - empirical investigation of exercise reporting in a systematic review on conservative management of continence;
5. analysis of the management of control groups in Cochrane reviews in neurorehabilitation;
6. using functioning information when evaluating the outcome of rehabilitation interventions in systematic reviews;
7. analysis of primary and secondary outcomes currently used in Cochrane reviews on neurorehabilitation – current practice and future recommendations;
8. producing a list of the methodological issues in rehabilitation research: a scoping review;
9. evaluation of human risk of bias in rehabilitation reviews;
10. dealing with co-morbidities in systematic reviews;
11. application and importance of Cochrane Overviews on rehabilitation.

The papers have been published, as special issues of Cochrane Rehabilitation, in European Journal of Physical and Rehabilitation Medicine 2019, April 15.

Authors	Title
Taylor WJ, Green SE.	Use of multi-attribute decision-making to inform prioritization of Cochrane review topics relevant to rehabilitation.
Kayes NM, Martin RA, Bright FAS, Kersten P, Pollock A.	Optimising the real-world impact of rehabilitation reviews: increasing the relevance and usability of systematic reviews in rehabilitation.
Hay-Smith EJC, Englas K, Dumoulin C, Ferreira CHJ, Frawley H, Weatherall M.	The consensus on exercise reporting template (CERT) in a systematic review of exercise-based rehabilitation effectiveness: completeness of reporting, rater agreement and utility.
Levack WMM, Martin RA, Graham FP, Hay-Smith EJC.	Compared to what? An analysis of the management of control groups in Cochrane reviews in neurorehabilitation.
Meyer T, Wulff K.	Issues of comorbidity in clinical guidelines and systematic reviews from a rehabilitation perspective.
Malmivaara A.	The human risks of bias in medical and rehabilitation research and practice the 8’1.
Engkasan JP, Ahmad Fauzi A, Sabrin S, Chai CC, Abdul-Malek IZ, Liguori S, <i>et al.</i>	Mapping the primary outcomes reported in Cochrane systematic reviews regarding stroke with the International Classification of Functioning, Disability and Health (ICF) domains: current trend and future recommendations.
Stuki G, Pollock A, Engkasan JP, Selb M.	How to use the ICF as a reference system for comparative evaluation and standardized reporting of rehabilitation interventions.
Pollock A, van WIJCK F.	Cochrane overviews: how can we optimize their impact on evidence-based rehabilitation?



Conclusion

The Catalyst Meeting highlighted the need to create a stable methodological working group in rehabilitation and to develop projects on prioritization, stakeholders mapping, checklist for applicability of RCTs in rehabilitation, ICF mapping of systematic reviews but also a list of main methodological issues in rehabilitation research and how to solve them. Cochrane Rehabilitation offers as the place for this methodological work.

Implications

Solving the methodological quality of evidence production in rehabilitation is an essential component of evidence production and synthesis. This work will eventually lead to more scientifically robust, and clinically meaningful evidence-based practice in rehabilitation.