

SPECIAL ARTICLE
COCHRANE REHABILITATION CORNERCochrane Rehabilitation Methodology Committee:
an international survey of priorities for future workWilliam M. LEVACK^{1*}, Thorsten MEYER², Stefano NEGRINI^{3,4}, Antti MALMIVAARA^{5,6}

¹Unit of Rehabilitation Teaching & Research, Department of Medicine, University of Otago, Wellington, New Zealand; ²Institute for Epidemiology, Social Medicine and Health System Research, Hannover Medical School, Hannover, Germany; ³Department of Clinical and Experimental Sciences, University of Brescia, Brescia, Italy; ⁴IRCCS Fondazione Don Gnocchi, Milan, Italy; ⁵National Institute for Health & Welfare, Helsinki, Finland; ⁶Finnish Medical Society Duodecim, Current Care Guidelines, Helsinki, Finland

*Corresponding author: William Levack, Unit of Rehabilitation Teaching and Research, Department of Medicine, University of Otago, Mein St, Newtown, PO Box 7343, Wellington, 6242, New Zealand. E-mail: william.levack@otago.ac.nz.

ABSTRACT

Cochrane Rehabilitation aims to improve the application of evidence-based practice in rehabilitation. It also aims to support Cochrane in the production of reliable, clinically meaningful syntheses of evidence related to the practice of rehabilitation, while accommodating the many methodological challenges facing the field. To this end, Cochrane Rehabilitation established a Methodology Committee to examine, explore and find solutions for the methodological challenges related to evidence synthesis and knowledge translation in rehabilitation. We conducted an international online survey via Cochrane Rehabilitation networks to canvass opinions regarding the future work priorities for this committee and to seek information on people's current capabilities to assist with this work. The survey findings indicated strongest interest in work on how reviewers have interpreted and applied Cochrane methods in reviews on rehabilitation topics in the past, and on gathering a collection of existing publications on review methods for undertaking systematic reviews relevant to rehabilitation. Many people are already interested in contributing to the work of the Methodology Committee and there is a large amount of expertise for this work in the extended Cochrane Rehabilitation network already.

(Cite this article as: Levack WM, Meyer T, Negrini S, Malmivaara A. Cochrane Rehabilitation Methodology Committee: an international survey of priorities for future work. Eur J Phys Rehabil Med 2017;53:814-7. DOI: 10.23736/S1973-9087.17.04958-9)

Key words: Rehabilitation - Evidence-based practice - Research - Surveys and questionnaires.

Cochrane Rehabilitation is new Field within the Cochrane organization, first launched on December 16th 2016, to act as a bridge between Cochrane and the rehabilitation community worldwide.^{1, 2} Cochrane (previously known as the Cochrane Collaboration) is a global and fiercely independent network of researchers, health professionals, patients, carers, and others that has at its core the aim of transforming that way health decision are made.³ In particular, Cochrane is a champion of evidenced-based practice, and a world leader in systematic reviews methods in healthcare.⁴

Cochrane Rehabilitation is comprised of an Executive Committee (with headquarters in the Rehabilitation

Centre "E. Spalenza-Don Gnocchi" in the University of Brescia, Italy), an international Advisory Board, five Committees, plus affiliated and contributing individuals from around the world. The Committees drive much of the work of Cochrane Rehabilitation and include: 1) a Publications Committee; 2) an Education Committee; 3) a Review Committee; 4) a Communications Committee; and 5) a Methodology Committee. Establishing the future work priorities of the Methodology Committee is the subject of this paper.

In the lead up to the creation of Cochrane Rehabilitation, methodological issues related to evidence synthesis and knowledge translation in rehabilitation had

been discussed in a preliminary meeting of interested parties on June 14th 2016 (by videoconference) and at the Formal Exploratory Meeting in Brescia, Italy, on September 19th 2016.¹ This early discussion highlighted the overall importance of identifying and addressing methodological issues related to the work of Cochrane from the particular viewpoint of rehabilitation stakeholders. It also highlighted the wealth of knowledge and experience that already existed internationally around understanding problems with methods from a rehabilitation perspective, the development of resources to help address methodological issues, and in the testing of new and old methods related to the development and implementation of evidence-based practice in rehabilitation.

A preliminary pilot survey was undertaken involving members of Cochrane Rehabilitation who had previously published a Cochrane review, which highlighted the existence of a number of challenges related to the production of Cochrane reviews in rehabilitation.⁵ These challenges can be classified as relating to patient populations (often heterogeneous in terms of clinical presentation and individual needs), rehabilitation interventions (often complex, involving multiple individualized and interacting treatment components, which can be difficult to standardize), and to control interventions (often vaguely described as “standard” or “usual” care). Furthermore, randomized controlled trials may be lacking because they are unfeasible for some clinical questions (e.g. if a particular presentation or condition is heterogeneous and rare), while evidence from alternative research methods are downgraded or dismissed as posing high risk of bias. Indeed, part of the initial objective for the development of Cochrane Rehabilitation was to create a forum in which review methods on rehabilitation topics could be discussed, debated, and developed. Following on from these initial discussions, the Methodology Committee conducted a subsequent online survey to invite rehabilitation stakeholders worldwide to help prioritize its future work objectives, and to ask people to indicate their current capacity to contribute to this work.

Methods

In brief, we used an online survey tool (Qualtrics, Provo, UT, USA) to collect data internationally on people’s views and perspectives regarding the importance of various future work activities that the Methodology

Committee could undertake and the degree to which people might be able to contribute to this work. We developed a draft of this survey in March 2017, which we peer-reviewed and tested online before circulating it more widely. We opened the survey for responses between March 27th and May 15th 2017. We advertised the survey via email (using Cochrane Rehabilitation’s mailing list), Twitter, Facebook, and by public presentation at the International Society of Physical & Rehabilitation Medicine’s 11th World Congress in Buenos Aires on 1-4 May 2017. Questions in the survey addressed issues that had arisen from our preliminary discussions during the setting up of Cochrane Rehabilitation, but we also gave respondents the option to comment and add to these with other ideas related to the work of the Methodology Committee. The survey was open to anyone who wanted to contribute. A list of the key survey questions is in the Appendix. A full copy of the survey is available from the corresponding author on request. Quantitative data was analyzed with descriptive statistics and the open text data with thematic analysis.

Results and discussion

Seventy one people from 26 countries, including all world regions except Africa, contributed to the survey. Approximately half of all responses (51%) came from Europe. Close to three quarters of respondents (73%) reported having experience in systematic reviews; about one third of respondents (34%) reported experience within the Cochrane organization. A similar proportion of respondents (34%) reported to have published on methodological issues already. Fifty-nine respondents (83% of all respondents) declared that they would like to join the Cochrane Rehabilitation Methods Committee.

There was a high degree of importance attributed to all areas of work that were asked about in the survey, with 69-85% of respondents either stating that each area of work was either “highly important” or “fairly important” for all but two questions (Figure 1). The most highly prioritized areas of work were to do with gathering information on how Cochrane review methods have been applied to reviews and protocols on rehabilitation topics in the past – such as how risk of bias has been managed; how heterogeneity in study populations across trials has been managed etc. (Question 1),

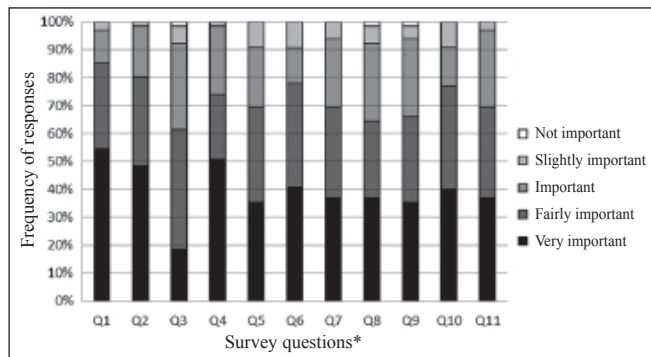


Figure 1.—Frequency of responses to survey questions. Importance for Method Committee to work in the rehabilitation field on: Q1. application of Cochrane review methods; Q2. publications on review methods; Q3. methods used in non-Cochrane systematic reviews; Q4. clinical relevance of Cochrane reviews; Q5. development of methods for evidence synthesis; Q6. PICO (patient, intervention, control intervention, outcome) in randomized controlled trials; Q7. review methods with alternative study designs to randomized controlled trials; Q8. methods for literature searching; Q9. validity of non-randomized studies; Q10. generalizability of systematic reviews; Q11. methods for consumer involvement.

*Full survey questions are in the Appendix I.

and on gathering a collection of existing publications on review methods for undertaking systematic reviews relevant to rehabilitation (Question 2).

The next two most important areas of work were around analyzing study questions and how the PICO acronym (patient, intervention, control intervention, outcome) had been interpreted and reported in past randomized controlled trials on rehabilitation (Question 6) and on assessing the generalizability of studies included in systematic reviews on rehabilitation topics (*e.g.* examining who has been included and excluded; who the findings are relevant to etc.) (Question 10).

For the majority of survey questions (82%), 20-30 people indicated that they had “very high” or “fairly high” ability to contribute to the work that needed to be done. The two areas of work for which the fewest people indicated a “very high” or “fairly high” ability to work were related to: 1) development of literature searching strategies to identify rehabilitation trials (26%; Question 6); and 2) development of methods for consumer involvement in rehabilitation research (30%; Question 11). Overall however, responses to questions about ability to contribute indicated that there are already many people with enthusiasm and relevant skills that they can bring to the work of the Methodology Committee (Appendix I).

In addition to the topics for work activities included in the survey, individual participants also provided a number of other suggestions for activities that the Methodology Committee might like to pursue, including work on the following:

- evaluating the degree to which methodological issues commonly seen as limitations in rehabilitation studies (*e.g.* blinding of patients and personnel) actually matter in terms of influencing reported effect sizes;

- evaluating rehabilitation professionals’ knowledge, attitudes and practice regarding the use of systematic reviews in their clinical practice.

- defining core outcome sets for different clinical problems and special interest areas of practice;

- development of platforms for methodological advice on Cochrane review revisions and protocols;

- developing guidance to support review authors in the development and execution of high quality review methods within Cochrane on rehabilitation topics;

- development of criteria and parameters for evaluation of the effectiveness of interventions in specific areas of rehabilitation – such as community-based rehabilitation;

- development of guides for reporting on the characteristics of intervention under investigation in a trial, *e.g.* active ingredients; intensity;

- development of guides for reporting on the characteristics of comparison groups (particularly when the comparison group is ‘usual care’);

- gathering information and learning from other Cochrane groups.

Two areas in the survey provoked conflicting opinions and debate: 1) whether time should be spent on work to incorporate non-RCT research in Cochrane reviews, and in exploring the methodological issues around non-RCT research in general; and 2) whether time should be spent on examining the application of Cochrane methods and results in low and middle income countries. Regarding the first issue, some respondent echoed concern about the potential limitations of RCTs to address the kind of clinical questions that matter most in rehabilitation, while other felt that development of better RCTs and better systematic reviews of RCT in rehabilitation was the main priority.

In terms of the second issue, some respondents felt that examining the relevance of current Cochrane reviews and Cochrane methods to low and middle income

countries was highly important. On the other hand, some respondents argued that work should be first conducted improving the overall quality of RCTs and systematic reviews of RCT in rehabilitation literature in general before there was value in examining issues specific to low and middle income countries.

Conclusions

Overall, there was a high level of feedback from a number of people worldwide to this survey. Responses to the survey indicated that all the currently proposed areas of work were considered important by at least a proportion of the respondent group. Many people are already interested in contributing to the work of the Methodology Committee and there is a large amount of expertise reported for this work in the extended Cochrane Rehabilitation network already. The main areas of debate at present are about whether it is important to prioritize work on methods for reviews of non-RCTs, and about whether and how work on the application of Cochrane methods in low and middle income countries

should be prioritized. The next steps to be undertaken by the Methodology Committee is the development of a “task lists” of future methodology activities, and the circulation of a call for interest in helping with these activities. To get involved in this other Cochrane Rehabilitative activities, visit the Cochrane Rehabilitation website, and sign up for the newsletter.

References

1. Negrini S, Kiekens C, Levack W, Grubisic F, Gimigliano F, Ilieva E, *et al.* Cochrane Physical and Rehabilitation Medicine: A New Field to Bridge Between Best Evidence and the Specific Needs of Our Field. *Arch Phys Med Rehabil* 2016;97:1226-7.
2. Negrini S, Kiekens C, Meerpohl J, Thomson D, Zampolini M, Christodoulou N, *et al.* Contributing to the growth of Physical and Rehabilitation Medicine (PRM): call for a Cochrane Field in PRM [Editorial]. *Eur J Phys Rehabil Med* 2015;5127:239-43.
3. Cochrane; [Internet]. Available from: <http://community.cochrane.org/organizational-info/resources/strategy-2020> [cited 2017, Aug 31].
4. Page MJ, Shamseer L, Altman DG, Tetzlaff J, Sampson M, Tricco AC, *et al.* Epidemiology and Reporting Characteristics of Systematic Reviews of Biomedical Research: A Cross-Sectional Study. *PLoS Med* 2016;13:e1002028.
5. Negrini S, Levack W, Malmivaara A, Meyer T, Gimigliano F, Pollet J, *et al.* Rehabilitation and Cochrane: A difficult relationship [Poster Presentation]. Global Evidence Summit. Cape Town, South Africa; 2017.

Conflicts of interest.—William M. Levack is employed as an academic by the University of Otago. He is coeditor of a textbook on goal setting, for which he receives royalties. In the last three years, his University has received speaker payments for a presentation at the University of Flinders and for the Australasian Society for the Study of Brain Injury. Stefano Negrini is a Medtronic consultant and has a stock of ISICO.

Acknowledgements.—We acknowledge the survey respondents for their active participation and input into this survey.

Manuscript accepted: August 30, 2017. - Manuscript received: August 25, 2017.

Appendix I.—Key survey questions.

How important do you think it is for people in the Methods Committee to undertake the each of the following activities?

Q1. A review of how Cochrane review methods has been applied to reviews and protocols on rehabilitation topics (*e.g.* how risk bias has been managed; how heterogeneity in study populations across trials has been managed *etc.*).

Q2. A collection and summarization of publications on review methods for evidence based practice relevant to rehabilitation.

Q3. An overview of methods used in non-Cochrane systematic reviews on rehabilitation topics as well as the actual methods publications.

Q4. Assessment of the relevance of Cochrane reviews on rehabilitation topics to the work of rehabilitation in low or middle income countries and from industrialized countries from the perspective of consumers/health providers/health policy makers or health funders in those countries.

Q5. Identification and prioritizing of work on the development of methods for evidence synthesis in rehabilitation methods from the perspective of experts in low or middle income countries and from industrialized countries.

Q6. Analyzing study questions and how well the PICO (patient, intervention, control intervention, outcome) has been reported in randomized controlled trials on rehabilitation.

Q7. Identifying and collating information (both with and external to Cochrane) on review methods to use with alternative study designs to randomized controlled trials to assess intervention effectiveness in rehabilitation (*e.g.* single-case series design, benchmarking controlled trials *etc.*).

Q8. Development of methods for literature searching on rehabilitation topics, including: A) using current methods within Cochrane Library; B) developing and testing new methods for sensitivity and specificity.

Q9. Assessing validity of non-randomized studies within rehabilitation, and developing methods for validity assessment within rehabilitation research.

Q10. Assessing generalizability of studies included in systematic reviews on rehabilitation topics (*e.g.* examining who has been included and excluded; who the findings are relevant to *etc.*).

Q11. Development of methods for consumer involvement in rehabilitation research.