Cochrane Rehabilitation and the future of systematic reviews in developmental rehabilitation

Cochrane Rehabilitation is a Cochrane Field (https://rehabilitation.cochrane.org/about-us) with the goal to allow decision makers to act according to the best and most appropriate evidence in the field of rehabilitation. It is a bridge between Cochrane and rehabilitation stakeholders[1] and conveys best evidence to rehabilitation professionals through various channels[2] (Cochrane Corners, social media, blogshots, e-books, educational activities, database of rehabilitation related Cochrane reviews) and projects such as 'be4rehab' in association with the World Health Organization.[3] It strives to improve the methodology by which evidence for rehabilitation is produced through meetings, papers, and projects such as Randomized Controlled Trials in Rehabilitation Checklist (RCTRaCk; http://www.equator-network.org/library/reporting-guidelines-under-development/reporting-guidelines-under-development-for-clinical-trials/#REHAB). Finally, Cochrane Rehabilitation works on coproduction and, with the Cochrane Review Groups, prioritization of which topics should be tackled first.

We see challenges, but also opportunities, in the future production of systematic reviews on rehabilitation.[4] Challenges come mostly from methodological issues, such as intervention descriptions (the 'black box' issue),[4] blinding difficulties, and the choice of the appropriate study design for the research question, as well as the description of Patient, Interventions, Comparison, Outcome (PICO) elements, randomization, statistical methods, and clinical replicability of rehabilitation interventions.[4,5] Research in (re)habilitation of health conditions during development faces other challenges, such as the duration of therapies, variability due to interaction with growth, patient dropouts, loss to follow-up due to time factors, and intermediate (during growth) versus final results. Most of these challenges apply to primary studies (original research), but they multiply into secondary studies (systematic reviews), since each included primary study can carry different methodological issues in the final review. Therefore, we need to solve, or at least have a deeper understanding of, as many of these issues as possible so that better evidence can be produced and used in the future.

Some solutions could come from improving the method of systematic review production (e.g. network meta-analysis) or from the development of better quality evaluation tools. Further, while Cochrane Rehabilitation is working to improve the reporting of primary studies (RCTRaCk), more empirical (meta-epidemiological) studies on rehabilitation research methods are needed to evaluate the influence of these issues on outcomes.

Another key point is distinguishing *best* evidence from *best possible* evidence. While *best* evidence comes from RCTs, there are clinical situations in which RCTs are not possible. In these cases, studies of lower design quality should be considered the *best possible* evidence.[4] With the Cochrane motto 'trusted evidence, informed decisions, better health' in mind, we believe the role of Cochrane goes beyond *best* evidence (which is Cochrane's current focus and fully recognized strength) toward *best possible* evidence (where work still has to be done). Rehabilitation, with all its coexisting methodological issues, would greatly benefit from such an approach.

For all these challenges another possible solution and great opportunity could be opening the door to greater involvement of clinicians. For decades we have seen an epidemiological emphasis in systematic review production and evidence generation. Currently, we are even facing a drive towards conflict of interest policies that could expand to involve any kind of conflict, including professional ones (such as clinical work). Nevertheless, we think that the best way forward for (re)habilitation systematic reviews is for clinicians to be more involved than before. Clinical interpretation will allow us to tackle methodological factors that increase the complexity of future systematic reviews in (re)habilitation. Ultimately, systematic reviews are irrelevant if they are not clinically meaningful and translated into practice.

STEFANO NEGRINI[1,2] | CHIARA ARIENTI[2] | CARLOTTE KIEKENS[3]

1 Clinical and Experimental Sciences Department, University of Brescia, Brescia; **2** IRCCS Fondazione Don Gnocchi, Milan, Italy. **3** Physical and Rehabilitation Medicine, University Hospitals Leuven, KU Leuven, Leuven, Belgium.

doi: 10.1111/dmcn.14337

REFERENCES

1. Negrini S, Gimigliano F, Arienti C, Kiekens C. Knowledge translation: the bridging function of Cochrane Rehabilitation. *Arch Phys Med Rehabil* 2018; **99**: 1242–45.
2. Negrini S, Arienti C, Engkasan JP, et al. Cochrane Rehabilitation: 2018 annual report. *Eur J Phys Rehabil Med* 2019; **55**: 314–8.
3. Rauch A, Negrini S, Cieza A. Toward strengthening rehabilitation in health systems: methods used to develop a WHO package of rehabilitation interventions. *Arch Phys Med Rehabil* 2019 Jun 14. pii: S0003-9993(19)30395-8. https://doi.org/10.1016/j.apmr.2019.06.002. [Epub ahead of print].
4. Negrini S. Evidence in rehabilitation medicine: between facts and prejudices. *Am J Phys Med Rehabil* 2019; **98**: 88–96.
5. Negrini S, Arienti C, Pollet J, et al. Clinical replicability of rehabilitation interventions in randomized controlled trials reported in main journals is inadequate. *J Clin Epidemiol* 2019; **114**: 108–17.