

EDITORIAL

Through an important initiative by the Co-editors-in-Chief of Archives of Physical Medicine and Rehabilitation, Drs Leighton Chan and Allen Heinemann, guidelines for preparation of manuscripts for journals in rehabilitation research have been assembled, as can be seen below. They build on existing guidelines for medical publication from different fields. I consider it a welcome initiative to improve the quality in our field and our journal will consider the guidelines mandatory from July 1st this year. In fact, we already endorse some of them. Most other rehabilitation journals will do the same at somewhat varying points in time.

Bengt H. Sjölund, MD, DMSc, Editor-in-Chief

ELEVATING THE QUALITY OF DISABILITY AND REHABILITATION RESEARCH: MANDATORY USE OF THE REPORTING GUIDELINES

Leighton Chan, MD, MPH, Allen W. Heinemann, PhD, Co-Editors-in-Chief and
Jason Roberts, PhD

Archives of Physical Medicine and Rehabilitation

With the remarkable growth of disability- and rehabilitation-related research in the last decade, it is imperative that we support the highest quality research possible. With cuts in research funding, rehabilitation research is now under a microscope like never before, and it is critical that we put our best foot forward.

To ensure the quality of the disability and rehabilitation research that is published, the 28 rehabilitation journals simultaneously publishing this editorial (see acknowledgments) have agreed to take a more aggressive stance on the use of reporting guidelines. Research reports must contain sufficient information to allow readers to understand how a study was designed and conducted, including variable definitions, instruments and other measures, and analytical techniques (1). For review articles, systematic or narrative, readers should be informed of the rationale and details behind the literature search strategy. Too often articles fail to include their standard for inclusion and their criteria for evaluating quality of the studies (2). As noted by Doug Altman, co-originator of the Consolidated Standards of Reporting Trials (CONSORT) statement and head of the Centre for Statistics in Medicine at Oxford University: “Good reporting is not an optional extra: it is an essential component of good research...we all share this obligation and responsibility (3).”

WHAT ARE REPORTING GUIDELINES?

Reporting guidelines are documents that assist authors in reporting research methods and findings. They are typically presented as checklists or flow diagrams that lay out the core reporting criteria required to give a clear account of a study's methods and results. The intent is not just that authors complete a specific reporting checklist but that they ensure that their

articles contain key elements. Reporting guidelines should not be seen as an administrative burden; rather, they are a template by which an author can construct their articles more completely.

Reporting guidelines have been developed for almost every study design. More information on the design, use, and array of reporting guidelines can be found on the website for the Enhancing the Quality and Transparency of Health Research (EQUATOR) network (4), an important organization that promotes improvements in the accuracy and comprehensiveness of reporting. Examples include the following:

1. CONSORT for randomized controlled trials (www.consort-statement.org);
2. Strengthening the Reporting of Observational studies in Epidemiology (STROBE) for observational studies (<http://strobe-statement.org/>);
3. Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) for systematic reviews and meta-analyses (www.prisma-statement.org/);
4. Standards for the Reporting of Diagnostic accuracy studies (STARD) for studies of diagnostic accuracy (www.stard-statement.org/); and
5. Case Reports (CARE) for case reports (www.care-statement.org/).

There is accumulating evidence that the use of reporting guidelines improves the quality of research. Turner et al. (5) established that the use of the CONSORT statement improved the completeness of reporting in randomized controlled trials. Diagnostic accuracy studies appeared to show improvement in reporting standards when the STARD guidelines were applied (6). Early evidence also suggests that inclusion of reporting standards during peer review raises manuscript quality (7). The International Committee of Medical Journal Editors now encourages all journals to monitor reporting standards and collect associated reporting guideline checklists in the process

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(8). Furthermore, the National Library of Medicine also now actively promotes the use of reporting guidelines (9).

HOW WILL REPORTING GUIDELINES BE INTEGRATED INTO MANUSCRIPT FLOW?

By January 1, 2015, all of the journals publishing this editorial will have worked through implementation and the mandatory use of guidelines and checklists will be firmly in place. Because each journal has its unique system for managing submissions, there may be several ways that these reporting requirements will be integrated into the manuscript flow. Some journals will make adherence to reporting criteria and associated checklists mandatory for all submissions. Other journals may require them only when the article is closer to acceptance for publication. In any case, the onus will be on the author not only to ensure the inclusion of the appropriate reporting criteria but also to document evidence of inclusion through the use of the reporting guideline checklists. Authors should consult the Instructions for Authors of participating journals for more information.

We hope that simultaneous implementation of this new reporting requirement will send a strong message to all disability and rehabilitation researchers of the need to adhere to the highest standards when performing and disseminating research. Although we expect that there will be growing pains with this process, we hope that within a short period, researchers will begin to use these guidelines during the design phases of their research, thereby improving their methods. The potential benefits to authors are obvious: articles are improved through superior reporting of a study's design and methods, and the usefulness of the article to readers is enhanced. Reporting guidelines also allow for greater transparency in reporting how studies were conducted and can help, hopefully, during the peer review process to expose misleading or selective reporting. Reporting guidelines are an important tool to assist authors in the structural development of a manuscript, eventually allowing an article to realize its full potential.

ACKNOWLEDGMENTS

As this issue went to press, the following Editors agreed to participate in the initiative to mandate reporting guidelines and publish this Position Statement in their respective journals. As a collective group, we encourage others to adopt these guidelines and welcome them to share this editorial with their readerships.

- Sharon A. Gutman, PhD, OTR: *American Journal of Occupational Therapy*
- Walter R. Frontera, MD, PhD: *American Journal of Physical Medicine and Rehabilitation*
- Leighton Chan, MD, MPH, and Allen W. Heinemann, PhD: *Archives of Physical Medicine and Rehabilitation*
- Helene J. Polatajko, PhD, OT(C): *Canadian Journal of Occupational Therapy*
- Derick T. Wade, MD: *Clinical Rehabilitation*
- Suzanne McDermott, PhD, and Margaret A. Turk, MD: *Disability and Health Journal*
- Stefano Negrini, MD: *European Journal of Physical and Rehabilitation Medicine*

- Steven Vogel, DO(Hon): *The International Journal of Osteopathic Medicine*
- Črt Marinček, MD, PhD: *International Journal of Rehabilitation Research*
- M. Solomonow, PhD, MD(hon): *Journal of Electromyography & Kinesiology*
- Paolo Bonato, PhD: *Journal of NeuroEngineering and Rehabilitation*
- Edelle [Edee] Field-Fote, PT, PhD: *Journal of Neurologic Physical Therapy*
- Guy G. Simoneau, PhD, PT: *Journal of Orthopaedic & Sports Physical Therapy (JOSPT)*
- Mark Elkins, PhD, MHSc, BA: BPhy, *Journal of Physiotherapy*
- Stacieann C. Yuhasz, PhD: *Journal of Rehabilitation Research and Development*
- Bengt H. Sjölund, MD, DMSc: *Journal of Rehabilitation Medicine*
- Carl G. Mattacola, PhD, ATC: *Journal of Sport Rehabilitation*
- Ann Moore, PhD and Gwendolen Jull, PhD: *Manual Therapy*
- Randolph J. Nudo, PhD: *Neurorehabilitation & Neural Repair*
- Kathleen Matuska, PhD, OTR/L: *Occupational Therapy Journal of Research: Occupation, Participation, and Health*
- Ann F Van Sant, PT, PhD: *Pediatric Physical Therapy*
- Greg Carter, MD: *Physical Medicine and Rehabilitation Clinics of North America*
- Rebecca L. Craik, PT, PhD: *Physical Therapy*
- Dina Brooks, PhD: *Physiotherapy Canada*
- Stuart M. Weinstein, MD: *PM&R*
- Elaine L. Miller, PhD, RN: *Rehabilitation Nursing*
- Elliot J. Roth, MD: *Topics in Stroke Rehabilitation*
- Dilşad Sindel, MD: *Turkish Journal of Physical Medicine and Rehabilitation*

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