

# Systematic reviews in *Journal of Physiotherapy*

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One purpose of *Journal of Physiotherapy* is to publish high quality research that can help to guide the clinical practice of physiotherapy. A research design producing results that provide an important guide for clinicians is the systematic review, because it summarises the results of multiple randomised trials into one document (Egger et al 2001). A well validated measure of the quality of systematic reviews is the Overview Quality Assessment Questionnaire (Oxman and Guyatt 1991, Oxman 1994, Moseley et al 2009). This scale rates systematic reviews from 1 (extensive flaws) to 7 (minimal flaws).

The Overview Quality Assessment Questionnaire has recently been used to assess the quality of 200 systematic reviews in physiotherapy (Moseley et al 2009). It is therefore timely to consider the quality of reviews in *Journal of Physiotherapy* against those in physiotherapy generally. Moseley and colleagues (2009) noted that the quality of systematic reviews improves gradually with time, so we analysed recent reviews. In the Moseley (2009) assessment, 110 physiotherapy systematic reviews published over the last 5 years scored 3.8 out of 7 (SD 1.7). This was 1.5 points (95% CI, 0.4 to 2.7) lower than the systematic reviews published in the then *Australian Journal of Physiotherapy* over the same period which scored 5.3 (SD 1.3).

Overview Quality Assessment Questionnaire scores reflect the complementary processes of ensuring careful design of the review by its authors and complete reporting of important design features by authors, reviewers and editors (Shea et al 2001). To assist with the latter, we have been using the Quality of Reporting of Meta-analyses (QUOROM) statement (Moher et al 1994). This has recently been superseded by the Preferred Reporting Items for Systematic reviews and Meta-analyses (PRISMA) statement (Moher et al 2009). Although the documents contain checklists with fundamentally similar sets of items, the PRISMA checklist contains some important new items. We have therefore adopted the new PRISMA statement. However, readers may not notice a major change because we have been reporting several of the new items on the PRISMA checklist for some time. For example, in our recent systematic reviews, we have been using a structured abstract to ensure key items are presented (eg, Bleakley et al 2008) and including a statement about funding received (eg, Scianni et al 2009). We have also been presenting the full electronic search strategy via the eAddenda (eg, Chien et al 2008) and the number of records identified through the electronic search versus the number identified through other sources (eg, Koppenhaver et al 2009). The PRISMA statement deals more comprehensively with systematic reviews that examine questions other than the clinical efficacy of an intervention, such as a review of strategies to increase the implementation of clinical guidelines (eg, van der Wees et al 2008). Furthermore, the

PRISMA statement deals more readily with systematic reviews that do not have randomised trials as their unit of analysis (Liberati et al 2009), such as systematic reviews of diagnostic or observational studies (eg, Hughes et al 2008, Chiarelli et al 2009, Prins and van der Wurff 2009). One of the most substantial changes involves registering the review in a publicly accessible register so that the protocol is determined *a priori* and this can be checked. However, as yet there are no registers set up for this purpose that are accessible without restriction. When there are, we will require review registration according to best practice just as we have done with clinical trial registration.

We believe checklists for reporting research help improve the quality of the research we publish. We therefore encourage researchers to strive to maximise the quality and the reporting of their reviews by consulting the PRISMA statement at both the design and the reporting stages of their reviews.

We hope that information reported as a result of our using the PRISMA statement will help readers to judge the believability of the results of systematic reviews as they consider applying them in clinical practice.

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## Websites

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