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Improving Completeness and Transparency of Reporting in Clinical Trials Using the Template for Intervention Description and Replication (TIDieR) Checklist Will Benefit the Physiotherapy Profession

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EDITORIAL

Improving completeness and transparency of reporting in clinical trials using the template for intervention description and replication (TIDieR) checklist will benefit the physiotherapy profession

Evidence-supported practice requires that physiotherapists incorporate high-quality clinical research on treatment efficacy into their clinical decision-making process.[1] If clinical interventions are not adequately reported in the literature, physiotherapists are unable to determine how to implement a study's interventions or to determine if the findings of the study are applicable to the patients that they are treating. Previous studies have reported that the incomplete description of interventions is a problem in reports of RCTs in many health areas.[2–4] One of these studies [4] examined 133 trials of non-pharmacological interventions. The experimental intervention was inadequately described in over 60% of the trials and descriptions of the control interventions were even worse.

A recent study [5] sought to determine if the descriptions of the physiotherapy interventions in a sample of 200 RCTs published in 2013 were adequately described. Overall, the interventions were poorly described. For the intervention groups, about one-quarter of the trials did not fulfil at least half of the criteria. Reporting for the control groups was even worse, with around three-quarters of the trials not fulfilling at least half of the criteria. These findings suggest that for the majority of the physiotherapy trials, clinicians and researchers would be unable to replicate the interventions.

Describing a treatment may seem like a simple task, but physiotherapy interventions can be very complex. Some interventions are multi-modal, involving the use of manual techniques, consumable materials, equipment, education, training and feedback. Some interventions are tailored to each patient's specific health state, including the patient's immediate response to the application of the treatment. When the intervention involves a course of treatments, the intensity or dose may progress over time. The descriptions of physiotherapy interventions in RCTs often do not capture the details of all of these complexities.

If researchers fail to comprehensively report all aspects of the interventions, the trials results cannot be generalized and incorporated into clinical practice. More concerning is that the intervention could be implemented incorrectly. Incorrect implementation may make the treatment ineffective, wasting the clinician's and patient's time, health care resources and potentially harming the patient. Inadequate reporting of interventions also poses a barrier to incorporating a trial's results into synthesis research such as meta-analyses, systematic reviews and clinical practice guidelines, making the findings of these resources questionable. This means that the resources that were invested in conducting the trial may have been wasted. These potentially wasted resources may be extensive, including direct trial costs (e.g. payment of researchers, consumables), use of infrastructure (e.g. clinic space, equipment), human resources (e.g. ethics committee review, granting body review) and the goodwill of patients who agree to participate. There is growing evidence that waste in clinical research has to be reduced.[6] When the list of resources involved in a single study is considered, improving the reproducibility of interventions through better reporting could markedly reduce waste in research.[7]

The TIDieR checklist and guide were developed to improve the reporting of interventions in any evaluative study, including RCTs.[8] The checklist contains 12 items and was developed as an extension to the CONSORT 2010 [9] and SPIRIT 2013 [10] statements to provide further guidance for authors in reporting key information in trial reports. The TIDieR items include: name of the intervention; intervention rationale for essential elements; intervention materials and details about how to access them; description of the intervention procedures; details of intervention providers; mode of delivery of intervention; location of intervention delivery and key infrastructure; details about the number, duration, intensity and dose of intervention sessions; details of any intervention tailoring; any intervention modifications throughout the study; and details of intervention fidelity assessment, monitoring and level achieved. The TIDieR checklist will help improve the quality of intervention reporting if it is used by study authors, journal editors, peer reviewers, ethics committees and funding agencies. A copy of the checklist is available at: http://www.equator-network.org/reporting-guidelines/tidier/.

In summary, incomplete reporting of interventions in physiotherapy studies is an important problem and *The Journal of Manual and Manipulative Therapy* endorses the use of the TIDieR checklist as a potential solution. The responsibility for improving intervention reporting extends beyond the authors of individual trials to journal editors and others who can mandate the use of the TIDieR checklist to combat this problem. Mandating the use of the TIDieR checklist will help authors more accurately describe their interventions. This will allow clinicians to more accurately generalize and apply the study's findings and researchers to synthesize and replicate the evidence.

The Journal of Manual and Manipulative Therapy supports the decision of the International Society of Physiotherapy Journal Editors (ISPJE) and will request completion of the

TIDieR checklist for clinical trials starting in January, 2017. Submitting authors are encouraged to use the TIDieR checklist with the CONSORT checklist and report these in Appendices to the manuscript to ensure that any interventions described in their manuscript are accurately reported. However, submitting authors will not be required to submit the checklist. The editor will make an initial decision about the suitability of the manuscript for peer review. For manuscripts that are suitable for review, the editor will check the manuscript against the checklist to ensure that all items are fully reported. Manuscripts that do not report all relevant aspects of the intervention will be returned to the authors to address the gaps in reporting before the manuscript will progress to peer review. Submitting authors with questions about the checklist are invited to contact the journal's editorial team at jm.brismee@ttuhsc.edu.

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