



## Application of the TIDieR checklist to improve understanding and replicability of studies in Physical and Rehabilitation Medicine

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One of the most critical problems in physical and rehabilitation medicine (PRM) research reports is the Material and Methods section. Theoretically, this section should serve to allow readers: 1) to understand the quality of the work performed; 2) to understand exactly what has been done to the patients; and 3) to replicate either the scientific work or the PRM approach in their clinical everyday world. While this is generally true for other therapeutic areas (*e.g.*, pharmacological treatment), it becomes problematic where interventions are based on specific personal skills (as in PRM, but also in surgery for example). It becomes even more problematic when the personal factors also involve the patient, so that the interaction between the two (patient and professional), eventually including an entire team (as is usual in PRM), plays a crucial role in determining the final results. In such situations, a careful description of the treatment approach is usually proposed, but a systematic reference system that ensures that crucial information is not missed could be one way to solve these problems.

In 2013 the *European Journal of Physical and Rehabilitation Medicine* (EJPRM) adopted the Guidelines for paper publishing<sup>1</sup> proposing its authors to use the following checklists: CONSORT for Randomised Controlled Trials, STROBE for Observational Studies, CARE for Case Reports, PRISMA for Meta-analyses, and STARD for Diagnostic Studies. In 2014 all other PRM journals followed suit, with a com-

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mon initiative launched by the Archives of Physical Medicine and Rehabilitation.<sup>2</sup> The model chosen by the EJPRM requires that, before writing up their research, authors comply with the Guidelines (available in the Information to Authors section), and then in the first review of the manuscript that they complete the checklist of the appropriate Guideline for verification. Through this model the quality of the papers published in the EJPRM has increased.

A new Guideline for Publishing that answers the problems mentioned above has recently been developed: the Template for Intervention Description and Replication (TIDieR).<sup>3</sup> The aim of this Guideline is to increase the replicability of the Material and Method section for interventional trials and so improve the reporting of interventions. This should make work easier for all of us: authors when reporting their research, reviewers and editors when assessing papers, and readers when applying their results. The TIDieR checklist includes 12 items: 1) brief name; 2) why; 3) what (materials); 4) what (procedure); 5) who provided; 6) how; 7) where; 8) when and how much; 9) tailoring; 10) modifications; 11) how well (planned); and 12) how well (actual). These items can specifically serve the field of PRM to better and systematically report the approach and intervention used.

Following the established pathway to improve the quality of published papers,<sup>1, 2</sup> and with a view to

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TABLE I.—Table to be added to the Material and Methods Section of the papers.

TIDieR item	Contents
Brief name	Provide the name or a phrase that describes the intervention
WHY (rationale of treatment)	Describe any rationale, theory, or goal of the elements essential to the intervention.
WHAT: materials	Materials: Describe any physical or informational materials used in the intervention, including those provided to participants or used in intervention delivery or in training of intervention providers. Provide information on where the materials can be accessed (e.g. online appendix, URL)
WHAT: procedures	Procedures: Describe each of the procedures, activities, and/or processes used in the intervention, including any enabling or support activities
WHO (profession, expertise, background, specific training)	For each category of intervention provider (e.g. psychologist, nursing assistant), describe their expertise, background and any specific training given
HOW (modes of delivery)	Describe the modes of delivery (e.g. face-to-face or by some other mechanism, such as internet or telephone) of the intervention and whether it was provided individually or in a group
WHERE (infrastructure and relevant features)	Describe the type(s) of location(s) where the intervention occurred, including any necessary infrastructure or relevant features
WHEN and HOW MUCH (number of sessions, duration, intensity or dose)	Describe the number of times the intervention was delivered and over what period of time including the number of sessions, their schedule, and their duration, intensity or dose
TAILORING (personalization)	If the intervention was planned to be personalised, titrated or adapted, then describe what, why, when, and how
MODIFICATIONS (from existing or initial protocol)	If the intervention was modified during the course of the study, describe the changes (what, why, when, and how)
HOW WELL: planned (adherence and procedure to maintain it)	Planned: If intervention adherence or fidelity was assessed, describe how and by whom, and if any strategies were used to maintain or improve fidelity, describe them
HOW WELL: actual	Actual: If intervention adherence or fidelity was assessed, describe the extent to which the intervention was delivered as planned

help Journal readers in evaluating the replicability of research results, the EJPRM now requires that authors use the TIDieR checklist. Authors will be requested to complete a specific table (Table I) to be added to the Material and Methods Section of their papers, so as to fully comply with TIDieR checklist requirements. The checklist can be found in the Instructions to Authors and compliance will be required at the first review stage of the publication process. We strongly believe that this is an important step toward improving the reporting in PRM papers, since there are many other factors that need to be considered (*e.g.*, adherence to treatment or timing of the approach or protocol of application and so on). Through this and future editorial initiatives we hope

to contribute to strengthening the overall quality of published material in PRM.

## References

1. Negrini S. Application of the "Guidelines for reporting health research" (and some other tips and tricks) to publish in the European Journal of Physical and Rehabilitation Medicine: an addition to the new Instruction to Authors. *Eur J Phys Rehabil Med* 2013;49:149-51.
2. Chan L, Heinemann AW, Roberts J. Elevating the quality of disability and rehabilitation research: mandatory use of the reporting guidelines. *Eur J Phys Rehabil Med* 2014;50:125-7.
3. Hoffmann TC, Glasziou PP, Boutron I, Milne R, Perera R, Moher D, *et al.* Better reporting of interventions: template for intervention description and replication (TIDieR) checklist and guide. *BMJ* 2014 Mar 7;348:g1687.