



## EDITORIAL

### Improving transparency of scientific reporting to increase value and reduce waste in mental health research



### Mejorar la transparencia de la información científica para incrementar el valor y reducir el despilfarro en la investigación en salud mental

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Poor mental health continues to be a major public health concern in many parts of the world.<sup>1,2</sup> Mental health problems, such as major depression, anxiety disorders, schizophrenia, bipolar disorder and alcohol and drug abuse, are among the most common and disabling (top 25) health conditions worldwide.<sup>2</sup> When mental health disorders are not optimally managed, they can impair self-care and adherence to treatment, and are associated with increased disease and societal burden and health care costs.<sup>3</sup>

Mental health research faces many challenges.<sup>4</sup> In 2014, the United States National Institute of Mental Health spent about 145 million dollars on clinical trials for evaluating interventions to help improve mental health related problems.<sup>5</sup> Understanding and interpreting results from randomized controlled trials (RCTs) requires a complete and adequate description of the interventions, particularly non-pharmacological ones, and the methods used to evaluate them.

Reports of RCTs evaluating interventions to manage patients with acute or chronic mental disorders often omit, or inadequately report,<sup>6-8</sup> key information making the study results of limited use to clinicians, other healthcare providers, decision makers, patients and their families. For example, Han et al.<sup>6</sup> examined reports of 422 RCTs published in the field of psychiatry from seven selected leading medical journals with high impact factors [e.g. the New England Journal of Medicine (NEJM), The Lancet, JAMA, JAMA Psychiatry, the American Journal of Psychiatry (AJP), Biological Psychiatry (BP), and the BMJ] and found that only 94 (22%) provided details of methods to implement the random allocation sequence, clarifying who enrolled participants, and who assigned participants to their groups – a process that should be included in a report of every clinical trial. Such problems are not unique to reports from clinical trials in mental health, and are frequent in almost every area of biomedical research.<sup>9</sup>

Inadequate application and/or reporting of methods are also associated with biased estimates of treatment effects. A recent paper published by Button, Ioannidis and colleagues<sup>10</sup> examined 41 meta-analyses published in 2011 that described at least one meta-analysis of previously published studies in neuroscience with a summary effect

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estimate (mean difference or odds/risk ratio) as well as study level data on group sample size. They found that the average statistical power of studies in the neurosciences is very low (21% approximately). The potential consequences of these findings can lead to overestimates of effect sizes and low reproducibility of results.

The justification for any new research should consider systematic reviews and meta-analyses of the relevant evidence that already exists. Also, it is generally recognized that when research findings are reported, these should be set in the context of previous analyses or similar research. Some journals are starting to require this information when prospective authors submit the results of their research.<sup>11</sup> This increases value of scientific research and may avoid waste that would come from seeking to answer research questions that had been answered reliably by previous conducted research. However, many published randomized controlled trials,<sup>12</sup> systematic reviews and meta-analyses<sup>13</sup> do not consistently refer to and discuss findings of previous systematic reviews on the same topic. For example, Helfer et al.<sup>13</sup> recently reported on whether systematic reviews and meta-analyses published in six leading medical journals with high impact factors (e.g. NEJM, The Lancet, JAMA, Annals of Internal Medicine, the BMJ and PLoS Medicine) cite, describe, and discuss previous systematic reviews and meta-analyses on the same topic. The authors identified 52 recent reports of systematic reviews and meta-analyses, and 242 previous reports on the same topics. Of these, 66% of identified previous systematic reviews and meta-analyses were cited, 36% described, and only 20% discussed in light of the recent systematic reviews and meta-analyses findings. Overall, such neglected reporting can be confusing for readers and other potential users.

Without adequate, transparent and complete scientific reporting, research resources are potentially wasted, the value of research is decreased and the scientific process fails to meet ethical obligations.<sup>12-15</sup> A simple way to improve the transparency and clarity of scientific reporting is to provide authors, peer reviewers and journal editors with mechanisms to follow so that the reports will be of value. In addition to following current recommendations by the International Committee of Medical Journal Editors (<http://www.icmje.org>), reporting guidelines and disclosure of a declaration of transparency are one way to help achieve these important goals. Reporting guidelines (such as CONSORT for randomized controlled trials: <http://www.consort-statement.org/>) provide authors, peer reviewers and journal editors with a checklist of items and/or a flow diagram of the research process that should be addressed when reporting a study. Journal endorsement of reporting guidelines is associated with improved completeness of reporting.<sup>16</sup> Additionally, the declaration of transparency asks the lead author to confirm the article is an "honest, accurate, and transparent account of the study being reported".<sup>17</sup> With this Editorial, we would like to congratulate the editors of REVISTA de PSIQUIATRIA y SALUD MENTAL for adopting and implementing these important initiatives, and in particular, to extend our welcome to the transparency declaration as a new journal's policy introduced in the instructions for authors of REVISTA de PSIQUIATRIA y SALUD MENTAL. Revision of instruction for authors represents an optimal way for implementing the

transparency declaration. In addition, editorial policies and actions must encourage the inclusion of an author's declaration of transparency detailed in a specific section of the published manuscript. Everyone is responsible for helping to ensure that all research is conducted and reported to such high standards that the findings are of value to all.<sup>18</sup> We hope that this way all together (authors, peer reviewers and journal editors) can contribute to increase value and reduce waste in reporting mental health research.

## Conflict of interest

The authors do not have any conflict of interest related to this report. DM is one of the developers of the Transparency Declaration.

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