

What CSP expects of systematic reviews in the future

The search for critical syntheses of scientific knowledge is not new. For example, 18th-century Scottish physician James Lind, credited with the first clinical trial in medicine ¹, stated on the cover page of his *A Treatise of the Scurvy* that it contained “*an inquiry into the nature, causes and cure, of that disease. Together with a critical and chronological view of what has been published on the subject*” ² (p. 13-4). The first attempt to quantitatively combine the results of different health studies is attributed to Karl Pearson in an article published in 1904 on typhoid fever ³. Three years later, Goldberger described a process that began with a literature search, followed by selection of references according to a set of criteria, and subsequent data extraction ². American statistician Gene V. Glass coined the term “meta-analysis” in 1976, referring to the integration of results from different studies using statistical analysis ⁴. Interestingly, only in the early 1990s was a distinction made between “meta-analysis” and “systematic review”: the former corresponding to the statistical method of quantitative synthesis and the latter to the process of reference selection, critical evaluation, and integration of results to minimize risk of bias.

As the last item in this very brief historical approach, before systematic reviews became popular as a rigorous and valid research method, they were treated for many years as a kind of second-rate science ². The situation has changed, and the scientific community and decision-makers in public health now value well-conducted systematic reviews as important sources of information.

In order to adjust the systematic reviews published in CSP to progress in this field, and for the journal to ensure its role in inducing scientific research, CSP will henceforth adopt some new recommendations for the reviews submitted for publication. Initially, every systematic review should have its protocol published or registered in a registry of systematic reviews, such as PROSPERO (<http://www.crd.york.ac.uk/prospero/>). Prospective protocol registration for systematic reviews is important because it enhances the transparency of the review process, protects against selective publication of results, and allows better scrutiny by reviewers concerning what the authors originally planned and what they actually performed. A second important aspect is that systematic reviews should be submitted in English. Submission of reviews in English is intended to optimize peer review, to the extent that it will allow inviting some of the authors of the original articles included in the manuscript to issue their reviews. We expect this to contribute to both the quality of the evaluation and greater availability of reviewers. Obviously, manuscripts in Portuguese or Spanish will also be accepted in the case of systematic reviews that relate exclusively to Brazilian or Latin American themes (for example, prevalence of a given condition in Latin America). A third relevant aspect is that the use of the STROBE instrument will no longer be accepted for assessing quality/risk of bias in observational studies. This is because STROBE only assesses the clarity of the information presented in publication. Although clarity in published reports is essential for assessing a study's quality, it is not sufficient to guarantee low risk of bias ⁵. By similar reasoning, we recommend that authors favor the use of strategies and instruments for assessing risk of bias that analyze that dimension more as

a function of elements that may compromise the validity of studies than based solely on the final value of a quantitative score. For example, an observational study that has failed to include a minimum set of confounding variables in its analyses, but that has adequately informed which variables it has used to adjust for confounding, would appropriately meet a STROBE item and could score high on certain scales for assessing quality of observational studies, despite a high risk of bias due to the lack of adjustment for a minimum set of confounding factors.

Finally, we wish to encourage the submission of systematic reviews on Public Health interventions with a population focus and dealing with questions that can inform health-related public policies. Importantly, interventions in Public Health usually display a higher degree of complexity than clinical research, since they tend to involve multifaceted approaches and outcomes with a variety of actors, processes, and contexts mediating the relations between the interventions and their possible effects. Thus, the traditional models of systematic reviews focused on clinical interventions are often inadequate for the particularities of interventions in Public Health. Systematic reviews on interventions in Public Health are a work in progress, and there is room for developing more mature methodological approaches to such reviews⁶. We hope that further advancement of editorial policies at CSP will contribute to the evolution of this research modality in our community and with positive repercussions on the health of populations.

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Review Editor

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