

Title: Methodologies for critical appraisal of prevalence studies: a systematic review

Authors: Celina Borges Migliavaca, Cinara Stein, Verônica Colpani, Maicon Falavigna

Background: Prevalence estimates have an important role in public health, supporting decisions related to health policies. Despite their importance, and considering that systematic reviews of prevalence studies have been increasingly published in the literature, there is still uncertainty and lack of standards for quality assessment of these studies.

Objectives: To identify, characterize and compare tools and frameworks used to assess the methodological quality of prevalence studies.

Methods: We searched MEDLINE, Embase and Web of Science from inception to January 2018 using terms related to “prevalence” and “critical appraisal”. We also screened the reference lists of included articles, contacted experts in the field and searched for further instruments on Google Scholar and websites of relevant institutions. We included methodological studies, manuals and handbooks that described a methodology (e.g. questionnaires, checklists, frameworks) to critically appraise prevalence studies. For each methodology identified, we extracted information about development, validation, applicability, content and design. Study selection and data abstraction were performed by two reviewers independently. PROSPERO registration number CRD42018088437.

Results: The search resulted in 2361 abstracts. After excluding duplicates, we screened 1315 titles and abstracts and are currently assessing 34 full-text articles for inclusion. Results will be presented descriptively, and the main characteristics of identified methodologies will be summarized into tabular form. Complete results will be presented at the Colloquium.

Conclusions: With this systematic review, we expect to provide useful information on how the quality of evidence for prevalence studies may be assessed in order to better inform policy makers for healthcare decision-making. **Patient or healthcare consumer involvement:** It is of critical importance for public health and healthcare consumers because of its impact on health system policies and priority-setting definition.