Quality Assessment Tool for Observational Research

Applies to: ***PLOS Climate*** **|** ***PLOS Global Public Health*** **|** ***PLOS Mental Health*** **|** ***PLOS One*** **|** ***PLOS Water***

About this Tool

PLOS staff editors have worked with *PLOS One* Section Editors to develop a quality-assessment tool that covers frequently noted concerns with observational research. The tool can be used alongside the AXIS guidelines[1] to guide your evaluation of whether the manuscript meets our publication criteria - *PLOS Climate* | *PLOS Global Public Health* | *PLOS Mental Health* | *PLOS One* | *PLOS Water*.

We hope this tool can be integrated with your expert knowledge on the current scientific standards of the community to determine the best editorial decision for these submissions. If you have questions about this tool or the manuscript you are handling, please contact the journal.

1. Downes MJ, Brennan ML, Williams HC, et al. Development of a critical appraisal tool to assess the quality of cross-sectional studies (AXIS). BMJ Open 2016;6:e011458. doi: 10.1136/bmjopen-2016-011458.

Quality Assessment Tool for Observational Research

Quality Assessment Items		Yes	No	N.A/I don't know/ comment
1	Have the authors proposed a clear research question? Does the discussion of related literature in the Introduction section justify the research question? Have the authors cited and discussed other relevant literature on this topic? (See publication criterion 2 - Climate | GPH | Mental Health | ONE | Water)			
2	Are the methods explained in detail, and are they appropriate for the study design? Are the statistical analyses appropriate? (See publication criterion 3 - Climate | GPH | Mental Health | ONE | Water)			
3	Do the reported conclusions address the research question? (See publication criterion 4 - Climate | GPH | Mental Health | ONE | Water)			

STOP

If you answered **No** to the questions above, the manuscript might not be suitable for external review. Consider rejecting the manuscript without further review, ensuring that the decision is justified by the publication criteria.

If you answered **Yes** to the questions above, the manuscript might be suitable for external review. Please consult the AXIS guidelines[1], and complete the rest of the table below to aid your assessment. If you note missing or incomplete items please consider requesting additional information on these reporting aspects in the decision letter to the authors.

Quality Assessment Items		Yes	No	N.A/I don't know/ comment
4	Have sample size calculations been provided? Are they appropriate given the sampling methodology?			
5	Have covariates and confounding variables been reported and defined in the Methods section?			
6	Are the results presented in tables in the Results section uniform and mathematically correct? (For instance if the frequency of variables are presented in percentages, the total percentages of each column should equal 100)			
7	Are the study limitations on the effects of the study outcomes thoroughly discussed?			

Links to more Resources for Editors
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