

Checklist for Critical Review General Study Design

Overall impression:

- Original material
- Important topic
- Valid interpretation of the findings
- Clear writing
- Relevant to the readership of the journal

Title:

- Reflection of the central message of the manuscript
- Specific

Abstract:

- Brief statement of the rationale
- Summary of the specific aims, basic procedures, main findings, main conclusions
- Internal consistency
- Concise, clear writing

Introduction:

- Opening paragraph on the general topic/problem
- Solid review of previously published literature in the research area
- Up-to-date citations
- No extraneous citations
- Concise statement of the aims/hypotheses of the study

Methods:

- Description of the methods for selecting subjects/specimens
- Clear definitions of the independent variables and methods of controlling/intervening
- Clear definitions of the dependent variables and methods of assessment
- Description of appropriate statistical approaches
- References for unfamiliar procedures, including statistical analyses
- Approval of the protocol for human/animal studies

Results:

- Description of the final set of subjects/specimens
- Suitable data summaries for all outcome variables
- Corresponding method in the Methods section for every finding in the Results section
- Figures and tables that enhance the description of results
- No overlap between the figures and tables
- Internal consistency
- Logical sequence in the presentation of results
- No extraneous results

Discussion:

- Introductory paragraph summarizing the main findings
- Interpretation of the findings
- Valid generalizations
- Insightful comparison to other studies
- Discussion of the strengths and limitations
- Recommendations if appropriate
- Summary paragraph
- Logical order