



INTERNATIONAL JOURNAL OF
**CIRCUMPOLAR
HEALTH**

How to publish your article?

Tiina Mäkinen, Ph.D.

Editor-in-Chief

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Content of presentation

- Why is your article rejected?
- The right choice of the journal
- Structure of your article – Is your message put across?
- Who should be authors?
- Peer-review- advantage or disadvantage?
 - What do reviewers pay attention to
- Finalising your article



Publish or Perish-Why publish in scientific journals?

- The purpose of scientific papers is to inform an audience of other scientists/interest groups about an important finding and to document the particular approach that was used to investigate the issue
- In general a scientific article reaches a wide (and international) audience
- Communication of your results contributes to the pool of knowledge within your discipline (and others!) and very often provides information that helps others interpret their own experimental results



Why is a manuscript rejected?- avoid these mistakes

- 1. Poor experimental design and/or inadequate investigation.** An inadequate sample size, a biased sample, a non-unique concept, and scientific flaws in the study are common faults.
- 2. Failure to conform to the targeted journal.** This is a common mistake. The focus of the manuscript is not within the scope of the journal and/or the guidelines of the targeted journal are not followed. This can easily be avoided by reading the targeted journal and reviewing the author guidelines.



Why is a manuscript rejected?- avoid these mistakes

- 3. Poor English grammar, style, and syntax.** Though poor writing may not result in outright rejection of a manuscript, it may influence the reviewer's and editor's overall impression of the manuscript. A well written manuscript has a better chance of being accepted.
- 4. Insufficient problem statement.** It is important to clearly define and appropriately frame the study's question.
- 5. Methods not described in detail.** Details are insufficient to repeat the results. The study design, apparatus used, and procedures followed must be made clear. Too much information is better than too little! Unnecessary information can always be removed prior to publication.



Why is a manuscript rejected?- avoid these mistakes

- **6. Overinterpretation of results.** A clear and "honest" approach to the interpretation of the results is likely to increase the chances of a manuscript being accepted. Identify possible biases and confounding variables, both during the design phase of the study and the interpretation of the results. Describe experimental results concisely.
- **7. Inappropriate or incomplete statistics.** Using inappropriate statistical methods and overstating the implications of the results is a common error. Use an appropriate test but avoid too complicated statistics. Quantify and present findings with appropriate indicators of measurement error or uncertainty (such as confidence intervals).



Why is a manuscript rejected?- avoid these mistakes

8. **Unsatisfactory or confusing presentation of data in tables or figures.** The tables or figures do not conform in style and quantity to the journal's guidelines and are cluttered with numbers. Make tables and graphs easy to read. Some editors may start by looking quickly at the tables, graphs, and figures to determine if the manuscript is worth considering.
9. **Conclusions not supported by data.** Make sure your conclusions are not overstated, are supported, and answer the study's questions. Be sure to provide alternative explanations, and do not simply restate the results.

Source: San Fransisco Edit, Newsletters



Why is a manuscript rejected?-avoid these mistakes

- 10. Incomplete, inaccurate, or outdated review of the literature.** Be sure to conduct a complete literature search and only list references relevant to the study. The reviewers of your manuscript will be experts in the field and will be aware of all the pertinent research conducted.
- 11. Author unwilling to revise the manuscript to address reviewer's suggestions.** Taking the reviewers' suggestions into account when revising your manuscript will nearly always result in a better manuscript. If the editor indicates willingness to evaluate a revision, it means the manuscript may be publishable if the reviewers' concerns could be addressed satisfactorily.



Selection of the forum of publishing (I)

- The appropriate selection of the journal is important: define the scope of your study
- Who is the audience of your research?
- Get acquainted with the scopes of different journals-if your paper is out the scope of the journal, this may be a reason for its rejection
- Plan what is the best type of article to present your research (original article, short communication, other)
- Take advantage of keywords, Google, MEDLINE, list of references
- Ask your colleagues



Selection of the forum of publishing (II)

- Choice may be based on the **Impact Factor (IF)**:
 - Indicates partially how widely read the journal is
 - The only quantitative way to compare the "quality" between different journals
 - IF can not be very high in journals covering a narrow scientific field
 - IF of journal can be found at ISI Web of Knowledge, Journal Citation Reports (<http://admin-apps.isiknowledge.com/JCR/JCR?PointOfEntry=Home&SID=Y11@OfneaK2cIm@Cp4o>)



Relevant questions

- o Is the journal peer reviewed?
- o Does the journal publish papers on subjects such as yours?
- o Which journals have the best reputation for publishing in your field?
- o Is the Editorial Board composed of leaders in their fields?
- o What is the journal's impact factor?
- o Which journals are most likely to be cited by others in your field?
- o Is the journal published by a society? Society journals are usually the most prestigious and have the largest circulation
- o Is the journal indexed in the major electronic databases (Medline, Biological, Abstracts, Chemical Abstracts, Current Contents, etc.)



Relevant questions

- o Which journals have the kind of expertise that would ensure your paper is given a “fair hearing”?
- o Are there journals whose readership you need/want to influence?
- o How often is the journal published? What is the usual time lag between receiving and publishing papers?
- o Is the journal published in English?
- o What is the focus of the journal; is it broad or narrow? Which disciplines are represented? What is the journal’s research orientation; is it basic, theoretical, or applied?
- o Do you like the appearance of published articles
- o Do the figures published in the journal have the resolution that you need?
- o Is speed an issue? If so, monthly journals have a shorter lag time than quarterly journals.



Types of scientific articles and texts

- original research
- review, feature article
- editorial
- short communication
- letter to editor
- comment/opinion
- case report
- book review
- news
- meeting reports, etc.



Structures of articles

The whole article
can be
condensed into
one sentence!

**IMRD=Introduction, methods, results,
discussion**

Message in the end of the paragraph
Most typical form in articles

Inverted triangle

Message in the beginning of article/paragraph
Is suitable for news types of texts



Structure of articles: length

- How many chapters? Intro: 2-3, Methods: 6-9, Results, 6-9, Discussion 7-9*
- Figures/illustrations per article: 1-4, Tables per article: 2-3
- Many journal have restrictions for the amount of tables, figures, references, exceedings those means additional costs

*averages of six journals in 1997, NEJM, Lancet, BMJ, J Ped, Ped R, Archives



Structures of articles

Experimental process	Section of Paper
What did I do in a nutshell?	<u>Abstract</u>
What is the problem?	<u>Introduction</u>
How did I solve the problem?	<u>Materials and Methods</u>
What did I find out?	<u>Results</u>
What does it mean?	<u>Discussion</u>
Who helped me out?	<u>Acknowledgments</u> (optional)
Whose work did I refer to?	<u>Literature Cited</u>
Extra Information	<u>Appendices</u> (optional)



Structure of article: Title

- Does the title of your work contain a message?
 - Avoid too lengthy titles: the title should contain the main message/content of your work with as few words as possible
 - Avoid fill words like: "Investigations of..." or "A study of..." or "Observations on..."
 - Titles are used in indexes, a misleading title may not reach the appropriate target groups of your work
 - If your research is limited to a certain species or a defined area mention this in the title



Structure of articles: abstract

- Perhaps the most important part of your article!
- A good abstract:
 - Enables to indentify a study fast and accurately
 - The reader is able to quickly see whether the study is related to his/her own research interests
 - Objectives, methods (shortly if not a method article), results, conclusions



Structure of articles: abstract

A good abstract:

- Short and concise, max 250 words (longer are truncated in the indexes)
- Does not contain abbreviations or references
- Does not repeat the text in the title
- Stand-alone document in the indexes, should represent the entire article



Structure of articles: introduction

- Introduction to the topic, what is known of the subject, brief literature review
- Gaps in the knowledge, research needs
- The end of the introduction (original articles) should contain: a) a research hypothesis, b) the aims of the research (“The objectives of the study were to determine...”), c) possibly a short description of the implementation (“For this purpose a randomized controlled trial assessing the effects of the drug was performed”)
- The readers should be relayed a message into which direction the article is heading in order for them to be able to follow the scientific evidence/research results



Structure of articles: material and methods (I)

- The methodology should be described in such a detail that someone else can repeat them, show the text to your colleague and ask whether it would be possible to duplicate your study!
- Study design:
 - Description of protocol/methods
 - Research area, location, important dates (e.g. recruitment of study subjects, exposure, follow-up time, collection of data)
 - Participant information: eligibility criteria, selection of controls etc.
- Subheadings may be necessary



Structure of articles: material and methods (II)

- Any used material and equipment should be precisely (name of product, type, manufacturer, country)
- If the equipment has been constructed for the specific study this should be described in even more detail. The same applies for a new method.
- Reagents, fixatives, staining methods should be described in detail, if the used method is generally well known a citation to the original research is sufficient
- Measurements should be described accurately (e.g. number of measurement points, intervals etc.)



Structure of article: material and methods (III)

- Sources of error/bias should be mentioned (the measurement accuracy was...)
- Description of statistical methods:
 - The most common methods do not need to be cited to (average values between the groups were compared with Student's t-tests...), for less known analyzes it is a good practise to include a citation
 - Remember to describe how the experimental groups/treatments were analyzed
 - Treatment of missing information, transformations, used statistical software
 - Should be presented in such detail that a knowledgeable reader could confirm the validity of the reported results
- Remember to report the ethics committee approvals (the procedure should follow the national and institutional ethical standards and the Helsinki declaration 1975)!



Structure of article: results (I)

- **Here you present the main findings of your study:**
 - Processed and condensed way of presenting the results
 - Important trends are emphasized
 - Be clear and present your case in a simple way!
 - **Don't say:** “Is clearly evident from Fig. 1 that bird species richness increased with habitat complexity”
But: "Bird species richness increased with habitat complexity (Fig. 1)".



Structure of articles: results (II)

- Combine text, tables and figures in a versatile manner when presenting your main findings
- Do not repeat the same information in the different presentation styles (e.g. the text should not repeat the same information as the table)
- Check the writing instructions of a journal how to present the tables or figures



Structure of articles: discussion (III)

- Discussion of the significance of your results
- Which phenomena were observed or strengthened?
- What type of conclusions/generalizations can be reached based on your results?
- How can your results be compared with previous studies?
- The discussion should be based on your findings and you may refer to those in the discussion. However, avoid duplicating the results section



Structure of articles: discussion (I)

- Adhere to discussing of the results based on your own findings, avoid over-speculating
- The discussion section should respond to the objectives presented in the introduction
- Present the study limitations
- Theoretical/practical applications: Can your results be generalized at an individual-, group or population level that differ from your research?
 - For example can results obtained from a longitudinal study be applied today?
 - Are the research results from health services from one country applicable in another?



Structure of articles: discussion (II)

- Discussion of the significance of your research results (do not leave the reader thinking "So what?")
- The most famous last sentences:
 - Further research is needed...
 - Another mystery solved: The research demonstrated that... (used in over 50%)
 - Avoid using words like "may" or "possibly" (The results may indicate...)



Structures of articles: references

- Should be generally available – avoid citing to newspaper articles
- Should preferably be in English
- If the original source is not in English, an indication should be added in which language the reference is produced in
- Complete information (title, author, journal, vol, issue, pages), it is the responsibility of the author that the citations are correct
- Reference styles deviate between the journals, check the instructions
- The amount of references may be limited, for original articles often <30
- Journal article on the internet: author, title, journal name (cited 2002 Jul 9). Available from: <http://www....>
- More examples on how to cite internet sources:
www.nlm.nih.gov/bsd/uniform_requirements.html



Guidelines for reporting original research

Name of guideline	Topic of guideline
STROBE	Observational studies (1)
CONSORT	Randomized controlled trials (2, 3)
QUOROM	Systematic reviews and meta-analyses of intervention studies (4)
MOOSE	Systematic reviews and meta-analyses of observational studies (5)
TREND	Nonrandomized evaluations of behavioral and public health interventions (6)
STARD	Diagnostic studies (7)
MIAME	Microarray studies (8)
COREQ	Qualitative studies (9)



Guidelines for original research

1. Vandenberg JP, von EE, Altman DG, Gotzsche PC, Mulrow CD, Pocock SJ, et al. Strengthening the reporting of observational studies in epidemiology (STROBE): explanation and elaboration. *PLoS Med*. 2007;4(10):e297.
2. Altman DG, Schulz KF, Moher D, Egger M, Davidoff F, Elbourne D, et al. The revised CONSORT statement for reporting randomized trials: explanation and elaboration. *Ann Intern Med*, 2001;134(8):663-94.
3. Consort Group. Consolidated standards of reporting trials [Internet]. Consort Group [cited 2 June 2008]. Available from: www.consort-statement.org
4. Moher D, Cook DJ, Eastwood S, Olkin I, Rennie D, Stroup DF. Improving the quality of reports of meta-analyses of randomised controlled trials: the QUOROM statement: quality of reporting of meta-analyses. *Lancet*. 1999;354(9193):1896-900.
5. Stroup DF, Berlin JA, Morton SC, Olkin I, Williamson GD, Rennie D, et al. Meta-analysis of observational studies in epidemiology: a proposal for reporting: meta-analysis of observational studies in epidemiology (MOOSE) group. *JAMA*. 2000;283(15):2008-12.
6. Des Jarlais DC, Lyles C, Crepaz N. Improving the reporting quality of nonrandomized evaluations of behavioral and public health interventions: the TREND statement. *Am J Public Health*. 2004;94(3):361-6.
7. Bossuyt PM, Reitsma JB, Bruns DE, Gatsonis CA, Glasziou PP, Irwig LM, et al. Towards complete and accurate reporting of studies of diagnostic accuracy: the STARD initiative. *BMJ*. 2003;326(7379):41-4.
8. Brazma A, Hingamp P, Quackenbush J, Sherlock G, Spellman P, Stoeckert C, et al. Minimum information about a microarray experiment (MIAME)-toward standards for microarray data. *Nat Genet*. 2001;29(4):365-71.
9. Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *Int J Qual Health Care*. 2007;19(6):349-57.



Authorship (I)

- Author=*augere*, increase, originate, promote
- The role of the author is more than just writing the article: he/she has enabled/facilitated the project or implemented the research
- The amount of authors/article has increased: MEDLINE (1966) average 2.09 authors/article, (2001) 3.92 authors/article



Authorship (II)

- **Exclusivity**
- **Contributorship in fixed areas** (e.g. xxx participated in collecting the data...)
- **Meritocracy:** potential authors are selected to the article when their scientific contribution exceeds a certain "threshold"
- **Guarantorship:** The most important author (either professionally or literally) carries the responsibility of research as a whole
- **Ghost authorship:** someone who should be included as an author is left out, or someone who does not really belong to the authorship is included
- **Gift authorship:** someone is chosen as author, because you want to impress this person. OR: the inclusion of a person to the list of authors is thought to increase the possibility to get your article published



Authorship (III)

- **Team/corporate authorship:** the entire research team is included automatically to the article, record 1076 authors/article !
(GUSTO 1993, NEJM 329: 673)
- **”Join the party”:** low control for quantity and quality



Authorship (IV)

- **Vancouver 1985:** authors should fulfil the following criteria: a) conceive or design the work, or analyze and interpret it or both, b) write the article, or make substantive revisions, or both, c) approval of final version of the manuscript
- **Vancouver 2001,** The authors should: a) conceive or design the work, acquire data, or analyze and interpret data, and b) draft or revise the text, or both and c) approve the final version of the manuscript (the collection of data was added, authors were asked to say who did what and editors were asked to publish this information)



Authorship (V)

- Consider the roles of the different persons participating to your research
- Agree of authorship issues well in advance of finishing the article!



Ethical principles

- Uniform requirements for manuscripts submitted to biomedical journals: writing and editing for biomedical publication (International Committee of Medical Journal Editors, ICMJE)



Purpose of peer-review

- **How does a journal select its reviewers?**
 - The authors suggest an appropriate expert to evaluate the material
 - The journal uses its own editorial board
 - The journal has an internal database of reviewers
 - The reviewer is selected from the list of references
 - Identified from indexes (e.g. Medline)



Purpose of peer-review

- **Benefits:**
 - Assists the editor in evaluating the scientific validity of an article
 - Weeds out rubbish
 - Improves the quality of articles between the submission and publication
 - Shares the responsibility, if something goes wrong (more people have evaluated the material)
 - Increases the value of the articles that have been published and undergone a peer-review



Purpose of peer-review

- **Disadvantages:**
 - Delays publishing
 - Gives a general impression of a "fair" system
 - Fails to recognize flaws/misconduct
 - Reviewers may harm/prevent publishing of "rival" colleagues
 - Weak editors do not have to make decisions
 - Requires excessive amounts of time and energy
 - Hampers the publishing of new and radical research results
 - Too much weight on published material



Purpose of peer-review

- Judges or colleagues?
 - Being a reviewer is a part of your duties as a scientist
- Reviewers operate according to the instructions of the journal
- A good reviewer is:
 - polite, encouraging
 - objective
 - fair
 - describes own area of expertise- and the knowledge gaps
 - operates within the given schedule



Why reviewers review

- Most reviewers are authors and researchers where the peer-review process allows them an opportunity to use and develop their own expertise in a number of significant ways
- **A reviewer upholds the integrity of the journal**, by identifying invalid research, as well as helping to maintain the quality standards of the journal
- **Fulfils a sense of duty** to the scientific community and their own area of concentration
- **Establishes relationships** with reputable journals, and may also increase his/her opportunity to be invited to join an Editorial Board



Why reviewers review

- **Reciprocates** the same courtesy shown to him/her when other reviewers review his own authored works;
- **Establishes his/her expertise** in and knowledge of the field;
- **Increases his/her reputation** and exposure in the field;
- **Stays up to date** and “in the loop” with respect to his/her discipline’s literature
- **Has access to the very latest research** and discoveries in the field prior to colleagues;
- **Learns about his/her discipline** as well as exercising the critical thinking skills essential to the practice of science.



Purpose of peer-review

- **What does the reviewer pay attention to:**
 - Scientific implementation
 - Novelty of the findings, does the research open new prospects
 - Does the research add knowledge within a certain field?
 - Does the negative findings obtained in the study add knowledge in a certain field?
 - Does the article fit the scope of the journal?
 - Appropriateness of the methods/implementation
 - Use of statistical methods
 - Use of tables and figures
 - Can some parts of the text be shortened or removed
 - Use of references
 - Possible conflict of interest



Purpose of peer-review

- Commonly used summary statements:
 - Accept as is: the article does not require any changes
 - Accept/minor revisions: minor modifications, corrections, further specifications
 - Major revision required: the article requires considerable revisions, for example, additional collection of data, further analyzes, rewriting of the text. If the author is able to respond to the concerns the paper may be accepted for publication
 - Reject: try another journal!
- The final decision of publishing is reached by the editorial team of the journal



Submitting your paper to the journal

- Perform a linguistic check/spell check- bad English can be a reason for rejecting a manuscript
- Read the instructions of the journal carefully- and follow them
 - marginals, length, narrative text, reference style, figures, tables, format of documents
- Suggesting reviewers
 - Facilitates the work of the journal, speedens the editorial processing
 - Take advantage of the list of references or MEDLINE
 - Ask your colleagues
 - Avoid situations causing a conflict of interest



Submitting your paper to a journal

- **Cover letter**
 - Is often addressed to the Editor or Editor-in-Chief (check the instructions of the journal)
 - A polite letter where you indicate your wish for the research to be published in the journal
 - Provide a brief description of the content of your study (novel approach), also mention the title and authors of your work
 - If the journal requests that you suggest possible reviewers, indicate those in the cover letter (sometimes also separately if you are submitting electronically)
 - Your full contact information



Submitting your article...

- Remember to send the last version for approval to all authors before submitting it to the journal (for example a few days before sending the manuscript)
- Copyrights: often the principal author signs on behalf of the others, sometimes everyone signs
 - Affirmation that the research is original and the results have not been published elsewhere
 - Some journals require transfer of copyrights to themselves



Submitting your article: revisions (I)

- Remember to address all issues/questions/concerns raised by the reviewers + editors – an incompletely revised manuscript may be a reason for rejecting the material!
- You do not have to agree on all the issues the reviewers have raised, you are the best expert of your research, misunderstandings are possible
- If you disagree, justify your claims, include references to support your arguments



Submitting your article: revisions (II)

- List all the reviewers comments- and your replies
- Provide a summary of the changes made to the article (if they are extensive)
- Send a polite letter to the Editor, where you separately acknowledge the reviewers (“We thank the reviewers for their constructive criticism..”, “Our manuscript has improved considerably due to the revisions..”)
- Complete the revisions within the given schedule, if necessary you can ask for additional time



Your article is accepted: phases before printing

- Assignment of copyrights (sometimes required already while submitting your work), ordering of reprints
- Layout proofs
 - Carefully check through the article several times, after these corrections no additional changes are usually accepted
 - Return the proofs quickly, usually within 48 h
 - Only small corrections are allowed (e.g. typos)
 - Check that special symbols (e.g. Greek letters) have translated correctly
 - Answer possible queries from the journal (e.g. missing reference)
 - Replies by email or marking the corrections to the proofs and faxing them to the journal



Information sources for authors (I)

- Uniform requirements for manuscripts submitted to biomedical journals.. www.icmje.org
- The Council of Science Editors (CSE) Manual for Authors, Editors, and Publishers (2006), (7th ed.), Style Manual Committee, Council of Science Editors
- Holliday, Adrian (2001) Doing and Writing Qualitative Research. London: [Sage Publications](http://www.sagepublications.com).
- European Association of Science Editors, contains also useful information for authors www.ease.org.uk
- World association of medical editors WAME www.wame.org
- Peer review in health sciences (2nd ed.) Godlee F, Jefferson T, London BMJ books 2002.
- Winning the publications game (2nd ed.), Albert T, Abingdon: Radcliff Medical Press 2000.



Information sources for authors

- How to Survive Peer Review by Elizabeth Wager, Fiona Godlee, and Tom Jefferson (2002)
- Getting Research Published: An A to Z of Publication Strategy by Elizabeth Wager (2005)
- San Fransisco Edit, Newsletter for authors
- Courses: Tim Albert Training (www.timalbert.co.uk)
 - effective writing, writing scientific papers and getting them published
- STROBE initiative. *Epidemiology* 2007: 18(6)