WRITING A SCIENTIFIC PAPER FOR PUBLICATION AND PUBLICATION ETHICS

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Why do we have to write?

- Complete assignments for assessment
- Share ideas and expertise
- Disseminate the research findings
- Promote career, academic work
- Expand knowledge and skills
- Gain personal satisfaction

Writing for Publication

How do you get started?

- want to get your ideas across to as many people as possible
- finding a writing mentor

Why should you write an article for publication?

- Evidence-based nursing practice
- Share the knowledge
- Career advancement

Writing for Publication

Who do you want to read your article?

- Clinical staff who give direct care
- Researchers
- Nurse educators
- Nurse managers

Writing for Publication

Which journal to publish in?

- check the aims and scope of a range of journals
- look at the Author Guidelines, read and follow the journal's instructions.
- "Am I 100% confident that I've followed every one of even the smallest details in the journal's guidelines?“

Writing for Publication

How will you put your message across?

The most common types of articles:

- Literature review
- Clinical articles
- Research reports
- Discussion papers
- Shorts reports
- Letter to editor
- Opinion pieces

Table 1. Systematic Review Report

Evans, D. (2003) Collegian, Journal of the Royal College of Nursing, Australia. 11, 2, 8-11. Reproduced with permission.

Review Activity	Information Required in Published Report
Review focus	• Explicit statement of review questions or hypothesis • Rationale for conducting the review
Search strategy	• Database searches • Search terms • Any restrictions in the search • Journals hand-searched • Organisations and topic experts contacted • Internet search strategy • Bibliography and reference list search • Outcome of the search process
Study selection	• Inclusion criteria • Exclusion criteria • How the criteria were used • Outcome of the selection process
Critical appraisal	• Criteria used to determine study quality • Processes used to appraise studies • Outcome of appraisal process
Data abstraction	• Process used to abstract data • Strategies used to manage missing data
Analysis	• Methods used for meta-analysis • Investigation of heterogeneity • Comparisons undertaken • Sensitivity analyses • Sub-group analyses
Results	• Characteristics of studies included in the systematic review • Summary of data for each treatment group of the included studies • Pooled data from meta-analysis
Discussion	• Summary of major findings • Limitations of review • Implications for research • Implications for practice

Table 2. General author guidelines for structuring an article
Taken from the *Journal of Advanced Nursing* (available at www.journalofadvancednursing.com)

INTRODUCTION	• Rationale, context
BACKGROUND	• This should be a substantial, critical literature review • Should end with conclusions drawn from the review for the study
THE STUDY	*(subheadings preferably in the following order)*
Aim/s	• Include research objectives/questions/hypothesis(es) if appropriate
Design/Methodology	• For quantitative studies this should be, for example, survey, randomised controlled trial, quasi-experimental, descriptive, cross-sectional, etc • For qualitative study this should be, for example, grounded theory, phenomenology, ethnography, etc
Sample/Participants	• Type – random, stratified, convenience, purposive (state what purpose), etc • Size • Description • Justification for the above • Was a power calculation done, if appropriate, and if not, why not? • Response rate
Data collection	• Subheadings for different types if appropriate, e.g. questionnaires, interviews, observation • Pilot study – if done, what changes (if any) did this lead to for the main study? • When the data collection was undertaken
Validity and reliability/ Rigour as appropriate	• Statement of criteria used – should be appropriate to the design/methodology • Steps taken to ensure this – if audit trail, research journal, peer assessment, etc, mentioned then give the results of this – do not just mention that it was done
Ethical considerations	• Ethics committee approval • Information and guarantees given to participants • Any special considerations, and how dealt with
Data analysis	• Including software used, if appropriate
RESULTS/FINDINGS	• Start with description of actual sample studied • Subheadings as appropriate • For qualitative research – findings and discussion/literature may be integrated
DISCUSSION	• Start with limitations • Must be linked to the literature
CONCLUSIONS	• Real conclusions, not just a summary/repetition of the findings • Recommendations for practice/research/education/management as appropriate, and consistent with the limitations

Writing for Publication

Are you ready now to plan your article?

- Drawn up your strategy, turn it into a plan for the article

Having a plan before you start writing helps to make sure that:

- You include everything that you need
- Work efficiently
- Safe time for making cuts, adding things, and making major changes

Writing for Publication

What should your plan look like?

Write down:

- The main headings of the article
- The subheadings of each theses sections, if needed
- The number of words you will use for each sections

→Then check against your chosen journal's guidelines to make sure that you have got it right.

Table 1 Typical structure of a research paper

Introduction
State why the problem you address is important
State what is lacking in the current knowledge
State the objectives of your study or the research question
Methods
Describe the context and setting of the study
Specify the study design
Describe the 'population' (patients, doctors, hospitals, etc.)
Describe the sampling strategy
Describe the intervention (if applicable)
Identify the main study variables
Describe data collection instruments and procedures
Outline analysis methods
Results
Report on data collection and recruitment (response rates, etc.)
Describe participants (demographic, clinical condition, etc.)
Present key findings with respect to the central research question
Present secondary findings (secondary outcomes, subgroup analyses, etc.)
Discussion
State the main findings of the study
Discuss the main results with reference to previous research
Discuss policy and practice implications of the results
Analyse the strengths and limitations of the study
Offer perspectives for future work

Typical structure of a research paper, IMRAD (Perneger & Hudelson, 2004)

IMRAD Format

Introduction	Why was the study done?
Methods	What was done?
Results	What did the researcher find?
Discussion	What does it mean?

Table 2 Common mistakes seen in manuscripts submitted to this journal

The research question is not specified
The stated aim of the paper is tautological (e.g. 'The aim of this paper is to describe what we did') or vague (e.g. 'We explored issues related to X')
The structure of the paper is chaotic (e.g. methods are described in the Results section)
The manuscripts does not follow the journal's instructions for authors
The paper much exceeds the maximum number of words allowed
The Introduction is an extensive review of the literature
Methods, interventions and instruments are not described in sufficient detail
Results are reported selectively (e.g. percentages without frequencies, *P*-values without measures of effect)
The same results appear both in a table and in the text
Detailed tables are provided for results that do not relate to the main research question
In the Introduction and Discussion, key arguments are not backed up by appropriate references
References are out of date or cannot be accessed by most readers
The Discussion does not provide an answer to the research question
The Discussion overstates the implications of the results and does not acknowledge the limitations of the study
The paper is written in poor English

Common mistakes seen in manuscript (Perneger & Hudelson, 2004)

PUBLICATION ETHICS

- Protection of human subject
- Redundant publication
- Salami slicing
- Authorship
- Transparency
  - – Conflict of interest
  - – Registering clinical trials
  - – Respecting confidentiality
- Misconduct:
  - Plagiarism
  - Copyright

Protection of human subject

- Based on the principles of respect for persons (autonomy and choice), beneficence (do no harm), and justice (equitable distribution of risks and benefits)
- Informed consent documents must include a great deal of required material:
  - Person is being invited to participate in a research study
  - Participation is voluntary
  - Approved by Ethical Committee/IRB
  - Data management.

Redundant /Duplicate Publication

- Read “Information for Authors” from journal.
- Discuss need to avoid redundancy & copyright infringement if more than one publication

“Salami Slicing”

- The same study or data are used across more than one article
- How to ‘slice up’ a research project for publication?
- Avoid to publish small sections of a study in several separate articles for collecting publications, it should address in depth different aspects of the same study or reporting the study in different ways for different kind of readers

Authorship and Constributorship

- Authorship credit should be based on:
  1) substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data;
  2) drafting the article or revising it critically for important intellectual content; and
  3) final approval of the version to be published.
- Each author should have participated sufficiently in the work to take public responsibility for appropriate portions of the content.

Authorship and Constributorship

- Acquisition of funding, collection of data, or general supervision of the research group alone does not constitute authorship.
- All contributors who do not meet the criteria for authorship should be listed in an acknowledgments section.
- Discuss at beginning of project about the authorship and corresponding author
- The person who has played the major role in research and writing the article will be the first named author

Transparency

- Conflict of interest → declare all the funding of the research
- Registering clinical trial → should be registered in publicly-accessible registries
- Respecting confidentiality → protecting subjects from being recognized.

Misconduct

Plagiarism:

- Do not offer work for publication that has already been published elsewhere, the submission must be an original article
- Do not ‘pass off’ the work of someone else as if it were your own

Copyright:

- Use copyrighted materials with permission or acknowledgement

References:

- http://www.nurseauthoreditor.com
- International Committee of Medical Journal Editors (ICMJE) http://www.icmje.org
- World Association of Medical Editors (WAME) http://www.wame.org
- Committee on Publication Ethics (COPE) http://publicationethics.org
- Cristine Webb (2009). Writing for publication. Wiley-Blackwell

Thank You