Manuscript Writing & Publishing

GSTTP research mini-course

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Learning objectives

• Discuss generating scientific manuscripts, including writing process, selecting a journal, working with coauthors, and the submission process itself.

• Explain steps in the manuscript publication process.
Understand the process

Upon acceptance, goes to production (author sees proof before pub.)

Editor reads reviews and makes decision

Reviewers provide feedback

If revisions are requested, author works on revised version

Paper is submitted

Editorial assistant checks for required components, etc.

Editor reads & decides if it should go to peer review

Editor invites peer reviewers (aims for ~2-3)

If resubmit decision, these same reviewers are usually involved

Peer review can be double blind (reviewers don’t know the authors’ names, authors don’t know who reviewed their article), single blind (reviewers know the authors’ names), or open (reviewers know authors’ names, and authors know who reviewed their article)
What do journals care about?

- Originality
- Sound methodology
- Scope/priorities
- Innovation
- Well- and clearly-written
Pick a set of target journals

- Check the papers you’re citing - where were they published?
- Logistical considerations: fees, article types, word count, scope
- “Impact factor”
- Coauthor experiences with journal(s)
Results

- May be helpful to first make table shells (like the numeric equivalent to an outline)

<table>
<thead>
<tr>
<th></th>
<th>Total Sample (n=##)</th>
<th>Males (n=##)</th>
<th>Females (n=##)</th>
<th>P-value of difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, mean (median)</td>
<td>## (###)</td>
<td>## (###)</td>
<td>## (###)</td>
<td>##</td>
</tr>
<tr>
<td>Years on hypertension treatment, mean (median)</td>
<td>## (###)</td>
<td>## (###)</td>
<td>## (###)</td>
<td>##</td>
</tr>
<tr>
<td>BP ≥140 systolic and/or ≥90 diastolic</td>
<td>## (%%)</td>
<td>## (%%)</td>
<td>## (%%)</td>
<td>##</td>
</tr>
</tbody>
</table>

* p-value based on t-test for continuous measures, and chi-square test for categorical measures
Introduction

Motivation- why does this topic matter

What are you looking at- what is already known, where are the gaps

Specific objective(s) of this paper- research question(s)?
Overall flow of many/most scientific papers

Abstract

Introduction: Broad (the problem) to narrow (focus of this paper specifically)

Methods

Results

Discussion: Narrow (findings of this paper) to broader (contextualize within the literature) to broadest (what does this mean/teach us as a field)

Conclusion: Broad (often link back to themes from start of Intro)
Methods

- Sufficiently detailed so a reader can assess if they trust the validity of your findings
- Must describe data collection (and any “pre” steps like tool development) & analysis
- Also must describe IRB & any other ethical or scientific review
Results vs. Discussion

- **Results**: what you found
- **Discussion**: how does this fit into the broader literature and what do we learn
References

Choose a software for reference management, adopt it early & use it consistently!
  • EndNote, Zotero, Mendeley...
Authorship

• Best to discuss this early & commit to roles accordingly
• Have this discussion with your mentor / PI / other important stakeholders in the research project
• There are standards for authorship, e.g. Intl Committee on Medical Journal Editors (ICMJE)

The ICMJE recommends that authorship be based on the following 4 criteria:

• Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work; AND
• Drafting the work or revising it critically for important intellectual content; AND
• Final approval of the version to be published; AND
• Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

• Also, 1 person will be corresponding author (may or may not be the 1st author)
Appendices

• Most scientific articles are published along with appendices/supplemental files

• These may contain:
  • Data collection tools
  • Additional results (tables, figures) that are relevant but not necessarily core to your main “story”
  • Other information about the sample (especially for secondary data)
  • Sensitivity analyses, robustness check results

• These are sent to peer reviewers along with the manuscript itself
Cover letters

• When you submit a manuscript, you also submit a cover letter

• In general, cover letters try to convey:
  • Main findings of the paper
  • Why it is important to the field
  • Why it is appropriate for that journal

• Some journals have specific additional information they want to see included too
Manuscript submission

• Journals use online manuscript submission systems

• All are slightly different, but in general:
  • You’ll upload all the relevant files (manuscript [sometimes blinded], cover letter, [sometimes separate title page], any appendices, etc.)
  • You’ll fill out fields on an online form – may be minimal, may be very extensive

• The corresponding author will need to approve the “proof” (all the above elements combined into a single PDF file) before it can move on to next stage in the cycle
Publishing requires time & patience

• Just a sample of some of my current papers, and their paths over the past 12 months (each color = different journal)

• 1 year since the start of their journeys, only 2 have been accepted – and all have required >1 revision, resubmission, etc.