The Basics of Scientific Manuscript Publishing
Introductions

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What about you?

Please share:

• Your name
• Name of your institution
• Short summary of your research topic
Outline of Webinar

First Half:
1. Strategies for journal selection
2. Avoiding predatory journals
3. Authorship basics
4. Ethical guidelines
5. Developing your research question

Second Half:
6. Titles
7. Brief overview of introduction
8. Brief overview of methods
9. Brief overview of results
10. Brief overview of discussion
11. Submitting your paper
12. Conclusion
Learning Objectives

1. Understand strategies for selecting appropriate target journal for scientific manuscripts
2. Learn what plagiarism is and the consequences of plagiarism in scientific publishing
3. Understand how to develop a clear and testable research question
4. Understand the basic structure of a scientific journal article
5. Recognize the steps needed to successfully submit a scientific manuscript to a peer-reviewed journal
1. Strategies for selecting a journal
Strategies for selecting journal

1. Enter key words into database (e.g. PubMed) and review journals listed in results
2. Look in your reference list
3. Use search engine such as JANE (Journal Author Name Estimator) [http://jane.biosemantics.org/](http://jane.biosemantics.org/)
4. Use a search engine such as Global Health Journal Search [https://www.ghjournalsearch.org/](https://www.ghjournalsearch.org/)
5. If you are a junior author, discuss with senior author
6. Where is the journal indexed (PubMed, etc)?
Rejection due to submitting to “wrong” journal

Two scenarios:

1. Submission out of journal’s scope
2. Submission not enough of impact for journal
Rejection due to submitting to “wrong” journal

Two scenarios:

1. Submission out of journal’s scope
2. Submission not enough of impact for journal
"I came up with a list of journals, some are very competitive (high impact factor) and others are much less competitive. How can I judge what tier journal is appropriate for my paper?"

- Journal tier is related to quality of methods and data, and impact /novelty of research
- Experience required to judge appropriate tier journal
- Junior researchers: consult with senior researchers
2. Avoiding Predatory Journals
What are predatory journals?

• Predatory journals: dishonest journals or publishers who publish articles with little or no real peer review
• They may publish real papers but no rigorous peer review
• They want your money
• Often send emails inviting you to submit paper
• Publishing in predatory journal will hurt your career
How can I tell if a journal is predatory?

- Beall’s list no longer active (ceased 2016)- DO NOT USE
- Consult colleagues and mentors
- Use this website [http://thinkchecksubmit.org/check/](http://thinkchecksubmit.org/check/)
  - See next slide for more
Use multiple strategies to assess whether a journal is predatory or legitimate.

Reference this list for your chosen journal to check if it is trusted.

- Do you or your colleagues know the journal?
  - Have you read any articles in the journal before?
  - Is it easy to discover the latest papers in the journal?

- Can you easily identify and contact the publisher?
  - Is the publisher name clearly displayed on the journal website?
  - Can you contact the publisher by telephone, email, and post?

- Is the journal clear about the type of peer review it uses?

- Are articles indexed in services that you use?

- Is it clear what fees will be charged?
  - Does the journal site explain what these fees are for and when they will be charged?

- Do you recognise the editorial board?
  - Have you heard of the editorial board members?
  - Do the editorial board mention the journal on their own websites?

- Is the publisher a member of a recognized industry initiative?
  - Do they belong to the Committee on Publication Ethics (COPE)?
  - If the journal is open access, is it listed in the Directory of Open Access Journals (DOAJ)?
  - If the journal is open access, does the publisher belong to the Open Access Scholarly Publishers’ Association (OASPA)?
  - Is the journal hosted on one of INASP’s Journals Online platforms (for journals published in Bangladesh, Nepal, Sri Lanka, Central America and Mongolia) or on African Journals Online (AJOL, for African journals)?
  - Is the publisher a member of another trade association?
3. Authorship Basics
Who Should be an Author?

ICMJE* Criteria for Authorship

- Substantially contribute to conception or design; OR acquisition, analysis, or interpretation of data; AND
- Draft work or revising it critically for important intellectual content; AND
- Approve final version to be published; AND
- Agree to be accountable for all aspects of work in ensuring that questions related to accuracy or integrity of any part of the work are appropriately investigated and resolved.

*International Committee of Medical Journal Editors

http://www.icmje.org/recommendations/browse/roles-and-responsibilities/defining-the-role-of-authors-and-contributors.html
Job satisfaction and determinant factors among midwives working at health facilities in Addis Ababa city, Ethiopia

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Competing Interests

The authors have declared that no competing interests exist.

Author Contributions

Conceptualization: ET AC AA. Data curation: ET AC AA. Formal analysis: ET AC AA. Investigation: ET AC AA. Methodology: ET AC AA. Project administration: ET AC. Resources: ET AC AA. Software: ET AC AA. Supervision: ET AC. Validation: ET AC. Visualization: ET AC AA. Writing – original draft: ET AC AA. Writing – review & editing: ET AC AA.
Authors: What Order?

• Depends on field of study
• Typically first author writes draft
• Typically last author is senior person
Advice: be clear about authorship from the start

- Deciding who is an author often depends on rules of institution, laboratory/research group
- Expect journals to ask details of how each author contributed
- Talk to authors early to clarify roles and author order (first, last, second, etc.)
- Don’t wait until after paper is written to discuss authorship roles and order of authors
Example of Author’s contributions

Authors’ contributions
DL wrote the proposal, participated in data collection, analyzed the data and manuscript writing. DT and HM accredited the proposal with some revisions, participated in data collection, analysis and manuscript writing. All authors read and approved the very last manuscript.

Determinants of stillbirth among women deliveries at Amhara region, Ethiopia
Demeke Lakew, Dereje Tesfaye and Haile Mekonnen
Why do women prefer home births in Ethiopia?

Solomon Shiferaw, Mark Spigt, Merijn Godefrooij, Yilma Melkamu and Michael Tekie

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4. Ethical Guidelines
Ethical issues:

• Plagiarism:
  • “theft or misappropriation of intellectual property and the substantial unattributed textual copying of another’s work.”
  • Copying someone else’s ideas or text without giving them credit

• Paper submitted to more than one journal at a time

• Consent not obtained from participants

• Approval not obtained from ethics committee for human or animal research
Sanctions for Plagiarism

- Journals may:
  - publish a retraction
  - inform the author’s institution
  - refuse for a time to consider future work from the author(s)
5. Developing Your Research Question
“Research Question”

- Definition: a *general term* including research objective, aim, hypothesis and questions
- Generally placed at the end of the Introduction Section
Components of a Research Question

• Dependent and Independent Variables
• Study Design
• Timing
• Population
• Setting
Qualities of a Good Research Question

- Clear
- Brief
- Detailed
- Answerable
You should be able to imagine the analysis from the Research Question

Example:

“therefore, the purpose of this study was to assess the magnitude of antenatal depressive disorders and identify predictors of antenatal depressive symptoms among Adama Hospital antenatal clinic attendants”
6. Titles
Which title do you like better?

A
Determinants of Facility-Based Childbirth in Indonesia

The Scientific World Journal (2019).
https://doi.org/10.1155/2019/9694602

B
Determinants of neonatal mortality in rural Northern Ethiopia: A population based nested case control study

PLOS ONE. 2017 April;
https://doi.org/10.1371/journal.pone.0172875
Function of a title

• Capture reader’s interest
  • Title will be read by thousands
  • Fewer will read your entire paper
• Identify paper’s main topic or message
• Indexing tool
Advice about Titles

• Review examples and guidelines from journal
• Where appropriate, extend title beyond regional area to other settings

Example: “Health information-seeking behaviours among pregnant teenagers in Ejisu-Juaben Municipality, Ghana”

• Instead, where appropriate, include words like “urban” “middle-income country” that are generalizable and that those outside your region will understand
• Use key words to supplement title
• Write final title at the end
• Ask colleague to give feedback on your title
Advice about Titles

• Don’t use abbreviations unless VERY common (like DNA or RNA)
• Consider how someone would search for a word: by abbreviation or by spelling it out?
  • You want people to find your paper!
7. Brief Overview of Introduction Section
You should care about this research; this research is important “So what?”

What’s already known about topic

What’s not “Gap” known about topic

Why important to learn this new information

3-5 paragraphs

Research question or aim
Advice: Introduction Section

- Make sure your literature review is complete
- Your introduction should be very focused
- It should be about 3-5 paragraphs
8. Brief Overview of Methods Section
Writing Methods Section

Explain

HOW study was done

Justify

WHY you used methods

• Context to understand and interpret results

• Enable replication
Methods Section: What to Include

- Setting, participants
- Study design, timing
- Recruitment, sampling
- Data collection
- Dependent, independent variables, covariates
  - Justify and explain
- Analysis
  - Explain each part of research objective /question
- Ethical approval
Organizing Your Methods Section

- Author guidelines
- Examples from target journal (similar topic and study design)

http://www.icmje.org/recommendations/browse/manuscript-preparation/preparing-for-submission.html#d

http://www.equator-network.org/
9. Brief Overview of Results Section
Recommmendation #1: Include the direction of associations

Positive Example
Women delivered by inexperienced midwives had a higher rate of severe perineal tears compared with women delivered by highly experienced midwives (0.5% vs 0.2%, respectively, \( P = 0.024 \)).

Negative Example
Binary logistic regression analysis showed that residence, household headship, maternal educational and marital status, parity, mode of delivery and birth order were statistically associated with early initiation of breastfeeding at \( p \)-value < 0.05.

Even if it seems obvious, include the direction of association.
Recommendation #2: Focus on associations rather than statistical tests

**ORIGINAL**
All body composition variables were negatively associated with fracture risk. Individual associations were $\beta = -0.23$ ($p<0.001$) for BMI, $\beta = -0.24$ ($p<0.001$) for fat mass and $\beta = -0.31$ ($p<0.001$) for lean mass.

**REVISED**
For each one-unit increase in BMI, a woman’s fracture risk score decreased by .23 points (95% CI XX – XX).

Focus of sentence is variables and direction of association

List of $\beta$ rather than describing each association

Instead of p value

*J Nutr Health Aging Volume 19, Number 6, 2015*
Advice about Tables and Figures

• Be sure that each table and figure has a clear message
• They should complement rather than repeat text
• They should be understandable on their own (without reading text)
• The title / legend should be complete, including comparisons and tests, information about sample and timing
• Be sure that colors make the figure easy to read
• Figures are often more interesting and easier to understand than tables
| Table 2: Characteristics of study participants |
|-----------------------------------------------|
|                                               |
| **Demographic characteristics** |
| Age at recruitment (mean ± SD) | Individual care | Group care | P value |
| Black | 25.4 (4.8) | 23.6 (4.9) | 0.009 |
| White/Other | 62 % | 53 % |
| No other children | 36 % | 60 % | 0.001 |
| Married | 17 % | 19 % | 0.747 |
| Education |
| Less than high school | 22 % | 24 % | 0.887 |
| High school diploma | 66 % | 65 % |
| Associate's degree or higher | 12 % | 10 % |
| Income |
| $20,000 | 31 % | 25 % |
| Census tract population density, people per square mile (mean ± SD)* | 1486 (1366) | 1429 (1010) | 0.682 |
| Census tract population density² |
| 65-898 people per square mile | 23 % | 25 % | 0.598 |
| 589-1500 people per square mile | 38 % | 43 % |
| Over 1500 people per square mile | 39 % | 32 % |
| Food secure in early pregnancy | 69 % | 74 % | 0.493 |
| WIC participation in pregnancy | 89 % | 89 % | 0.964 |
| SNAP participation in pregnancy | 51 % | 41 % | 0.158 |
| Psychosocial measures (survey 1) |
| Perceived stress (mean ± SD) | 17.7 (6.3) | 18.1 (6.5) | 0.685 |
| Depressive symptoms (mean ± SD) | 11.8 (7.8) | 12.7 (8.9) | 0.438 |
| Prenatal distress (mean ± SD) | 10.6 (6.9) | 12.2 (6.9) | 0.099 |
| Planning-preparation coping (mean ± SD) | 28.1 (11.8) | 31.3 (12.2) | 0.064 |
| Avoidance coping (mean ± SD) | 14.4 (7.5) | 15.6 (8.6) | 0.289 |
| Positive affect (mean ± SD) | 33.6 (8.3) | 34.0 (8.2) | 0.777 |
| Negative affect (mean ± SD) | 22.8 (8.4) | 23.9 (9.0) | 0.375 |
| Coping resources (survey 1) |
| Minimal social support (mean ± SD) | 25.2 (4.5) | 24.8 (4.9) | 0.577 |
| Life orientation (optimism) (mean ± SD) | 14.8 (5.1) | 15.1 (4.8) | 0.668 |
| Weeks between survey 1 and 2 (mean ± SD) | 20.7 (2.4) | 19.9 (2.5) | 0.027 |
| Total participants survey 1 & 2 | 99 | 115 |
| WIC participation postpartum | 90 % | 84 % | 0.211 |
| SNAP participation postpartum | 49 % | 45 % | 0.633 |
| Weeks postpartum for survey 3 (mean ± SD) | 6.8 (2.2) | 6.7 (2.7) | 0.708 |
| Total participants survey 1 & 3 | 90 | 110 |

Title not complete
Table 1
Percentage of facilities that require women to purchase supplies and that require payment before emergency among facilities that perform deliveries, Ethiopia, 2008.

| Facility type               | Charge fee or require woman to buy supplies for normal delivery, %<sup>a</sup> | Require payment prior to treatment for obs/gyn emergency, %<sup>a</sup> | Total number of facilities that perform deliveries |
|-----------------------------|-------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|-----------------------------------------------|
| National Facility type      |                                                                                                 |                                                                     |                                               |
| Hospital                    | 85                                                                                               | 38                                                                  | 112                                           |
| Government                  | 83                                                                                               | 30                                                                  | 90                                            |
| Other                       | 91                                                                                               | 73                                                                  | 22                                            |
| Health center/clinic        | 66                                                                                               | 16                                                                  | 639                                           |
| Government                  | 65                                                                                               | 16                                                                  | 625                                           |
| Other                       | 71                                                                                               | 21                                                                  | 14                                            |

<sup>a</sup> Two health centers did not answer and were excluded from denominators in these columns.
Negative example

Colors not easy to distinguish
Negative example

When possible, create a figure rather than a table (see next page)...

Table 1. Frequency of Self-Injurious behaviours in the past year (N = 1571).

|                          | N  | %   |
|--------------------------|----|-----|
| Any self-injury in the past year | 636 | 40.7 |
| Moderate/Severe self-injury\(^a\) | 303 | 19.4 |
| Minor self-injury only    | 333 | 21.3 |
| Self-injury with associated suicidal intent | 106 | 6.8  |
| Moderate/Severe self-injury\(^a\) without suicidal intent | 229 | 14.6 |
| Minor self-injury without suicidal intent | 301 | 19.2 |

Note: Participants could endorse more than one method of self-injury; Total N's may vary due to missing data.

\(^a\) This includes participants who reported moderate/severe forms of self-injury alone or in combination with minor forms of self-injury.
Frequency of self-Injurious behaviours in past year, young adults in urban India (N = 1571).

Any in past year n = 636
Moderate or severe n = 303
Minor n = 333
With Suicidal Intent n = 106
Without suicidal intent Moderate/severe n = 229
Minor n = 301

Positive example

Can include details in figure

Title more complete
Advice: Check Consistency

• Make sure all parts of research question answered in results
• Make sure analysis and variables for each result is explained in methods
10. Brief Overview of Discussion Section
Elements of the Discussion Section

- Restate main findings
- Significance of results & interpret meaning
- Compare results with other research
- Pathways that might explain results
- Strengths of study
- Limitations of study
- Impact and applications of research
- Suggestions for future work
In this study, most of pregnant mothers who chewed khat during pregnancy had a tendency to chew almost every day and throughout their pregnancy time. This could lead to poor appetite of pregnant mothers as khat has a known effect of decreasing appetite in many people (Lemieux et al. 2015) and has vaso-constrictive effect on placental vessels (Lemieux et al. 2015; Jansson et al. 1987). Hence, poor appetite of pregnant mothers could lead to a poor nutritional status of the mother and inadequate weight gain during pregnancy which was identified as a factor for LBW in this and in other previous studies.

References

Tesfay, K., Abera, M., Wondafrash, M. et al. Int J Ment Health Addiction (2018). https://doi-org.proxy.lib.umich.edu/10.1007/s11469-018-9888-6
Recommendation #2: Include your strengths!

As a cross-sectional baseline analysis of our longitudinal cohort, our study has many strengths. Our cohort includes a large number of adolescents with endometriosis, more than double that of the case series and cross-sectional studies frequently referenced, and required a surgical diagnosis for inclusion. We also have collected standardized, validated, detailed information regarding self-reported and clinically evaluated symptoms across a variety of pain types, locations, and patterns.

Start with most impressive strength
Recommendation # 3: Acknowledge and defend your limitations

Our study has several limitations. Our data also relied on electronic medical records from a single health care system; immunizations administered by providers not affiliated with our system may not have been completely captured. This may result in a potential overestimation of missed opportunities. However, in our study population, this is unlikely to have been a major issue. In a different study from our institution, a sample of adult women who sought care at our clinic were interviewed to assess all prior sources of care since 2006, when the HPV vaccine was introduced. We found that an accurate HPV vaccine history could be ascertained in 82% of these women by reviewing electronic medical records because the majority of these adult women received care either exclusively at our clinic or at one of the other sites within the Yale–New Haven Hospital System (unpublished data).

Acknowledge potential limitations... Immunization data came from EMR (may not have captured all immunizations)

but defend where appropriate. Be specific about possible impact on results

Where appropriate, provide reason why limitation might not be a big problem
Recommendation #4: Include suggestions for future work

Be as specific as possible

Avoid cliché: “This problem needs further studies.”

anaesthesia. Further research is needed into the aetiology, outcomes and prevention of neonatal hypothermia during CS. Well-designed meta-analyses and systematic reviews of the current literature on the prevention of IPPH are needed, due to the high number of published trials.

Chebbout et al. International Journal of Obstetric Anesthesia (2017) 31, 37-44
Recommendation #5: Explain applications of your findings

4.3. Implications

Our findings suggest that women employ CCU to hide family planning from their partners as well as the community. This information can help programmers, clinicians, and family planning practitioners tailor clinical care and community mobilization campaigns to provide welcoming and inclusive care. It also underscores the importance of confidentiality and discretion when providing reproductive healthcare, for a woman may be trying to hide her contraception from both her partner and the community. Moreover, clinicians and practitioners should be aware that CCU may be common and provide education to women on the wide variety of contraceptive methods to help them understand if their current method is best for their safety, health, and well-being.

Heck et al. "It is my business": A Mixed-Methods Analysis of Covert Contraceptive Use among Women in Rakai, Uganda. Contraception (2018, in press)
Recommendation #6: Don’t Repeat Results
Recommendation #7: Don’t use old references

• Show reviewers you are aware of all important and recent findings-- discuss and cite them
• Continue searching for new articles as you work on your paper (can take 1-2 years to develop and publish)
• Avoid citing inappropriate references for biomedical journals (like Wikipedia and magazines)
11. Submitting your paper
Follow Author & Submission Guidelines

- STUDY guidelines
- Allow time to complete online submission thoroughly
- Be sure manuscript is complete; with title, authors, affiliations, keywords, main text, references, tables figures
- Check submission-generated PDF carefully
Writing and Language

- Very poor writing will cause your paper to get rejected
- Poor English language will cause your paper to get rejected
- If necessary, work with an editor to improve language and writing, organization and completeness
Include a Cover Letter

• Helpful to summarize your paper
• Make argument for relevance and importance of your paper
• Check that journal and editor name are correct!
• Optional at some journals
• Different content for different journals
  • Some journals require author/ copyright/ ethical information
• Check author guidelines carefully
Cover letters should emphasize:

• Why study is important and relevant
• What is NEW that study contributes
• Example cover letters available at PREPSS website...
Resources for Writing a Cover Letter

Examples of cover letters (files may include more than one cover letter example)

- American Society of Tropical Medicine and Hygiene
- American Journal of Epidemiology #1
- American Journal of Epidemiology #2
- Journal of Nutrition
- Journal of Neurosurgery #1
- Journal of Neurosurgery #2
- Generic #1
- Generic #2

Link to Cover Letter Resources on PREPSS Website
12. Conclusion
Key Points:

• Strategically choose target journal
• Communicate with authors early about roles
• Write a research question that is clear, brief, detailed, and answerable
• Follow writing structure / formula for different sections of paper
• Follow ethical guidelines
• Write a convincing and thoughtful cover letter
Thank you for your time!

We are happy to answer any questions that you might have now or Email us at prepssadmin@umich.edu anytime!