Publish or Perish: How to write and submit a research manuscript

Workshop
3 July 2013
Who we are?

- Peer-reviewed
- Open access
- Multidisciplinary

Mission and Vision: Platform for relevant HIV research accessible to all stakeholders. We encourage submissions from LMIC.

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## Session outline

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>14h30-15h50</td>
<td><strong>How to write a research manuscript</strong></td>
</tr>
<tr>
<td>15h50-16h10</td>
<td><strong>Choosing a journal and submitting a manuscript</strong></td>
</tr>
<tr>
<td>16h10-16h25</td>
<td><strong>Editorial decision making and common reasons for rejection</strong></td>
</tr>
<tr>
<td>16h25-16h40</td>
<td><strong>Responding to reviewers and revising a manuscript</strong></td>
</tr>
<tr>
<td>16h40-17h00</td>
<td><strong>Scientific integrity in publishing</strong></td>
</tr>
<tr>
<td>17h00-17h30</td>
<td><strong>Question-answer time with editors’ panel</strong></td>
</tr>
</tbody>
</table>
From a scientific point of view –

Results that are not published mean the research did not take place.
Type of research

• Qualitative (Social and Political Sciences, Humanities)

• Quantitative (Basic, Biomedical and Clinical Sciences)

• Case studies / Mixed method
What makes a good manuscript?
It’s all about the question ...

- Design and implementation of research
- Analysis of the data
- Discussion of the findings

Question
Manuscript structure (IMRaD)

Title/title page
Abstract
Introduction
Methods and materials
Results
Tables and Figures
Discussion
References

What is the most important part of a scientific article? ...
Title

The part most often read
Often the only part read

Short
Specific
Representative
Informative

Abstract

Main text
What different types of information does this title contain?

Effect of multiple micronutrient supplementation on survival of HIV-infected children in Uganda: a randomised controlled trial
Title – Individual Exercise 1

Effect of multiple micronutrient supplementation on survival of HIV-infected children in Uganda: a randomised controlled trial

Study population | Setting | Study design

Ndeeki et al, JIAS 2010
What information is missing in this title and what would be a better alternative?

Alcohol intake increases sexual risk behaviour
Title – Group Exercise 2

What? Alcohol intake and sexual risk behaviour
Who? ? eg. adolescents
How? ? eg. survey, cross-sectional study
Where? ? eg. Thailand

A survey on the effect of alcohol intake on sexual risk behaviour among Thai adolescents
Abstract

• Main problems encountered by editors:
  – Inconsistent 😞
  – Incomplete 😞

• Brief summary
• Complete
  – Background
  – Experimental design
  – Major findings
  – Conclusion
• Stand alone
• Consistent with the paper
Introduction: What was your question

- **Background** – what is the topic
- **Context** – what is known, what previous research has been done
- **Challenge** – nature and importance of knowledge gap
- **Question** – what was the aim of the study

😊 Problem: the reason for the study is not clear

Funnel-shaped, from general to specific
In which order would you place these sentences in your introduction?

- **A** Although a more strategic monitoring for ART efficacy is now also recommended, virological monitoring is still not feasible for the majority of patients
- **B** Here we describe virological outcome and emergence of drug resistance in a cross-sectional study
- **C** Implementation of ART is recognized as a public health priority in resource-limited countries
- **D** It is thus important to evaluate the outcome and effectiveness of ART programmes in routine care settings

... And why?
Implementation of antiretroviral therapy (ART) is recognized as a public health priority in resource-limited countries. In order to allow a rapid roll out of ART, countries use the World Health Organization (WHO) public health approach, which proposes standard first-line therapy, together with treatment initiation and switch guided by clinical disease progression and, where possible, with monitoring of CD4 cell counts [1]. The standard therapy consists of two nucleoside reverse transcriptase inhibitors (NRTIs) (3TC+AZT/d4T) and one non-nucleoside reverse transcriptase inhibitor (NNRTI) (EFV/NVP).

In 2010, these guidelines were revised and recommended less toxic drugs in first-line therapy by replacing stavudine (d4T) with tenofovir (TDF) [2]. Although a more strategic monitoring for ART efficacy is now also recommended, virological monitoring is still not feasible for the majority of patients on ART in sub-Saharan Africa due to the absence of adequate laboratory facilities and insufficient financial means. In addition, deficiencies in health systems and resources, such as unreliable supply systems, storage and the lack of qualified personnel to prescribe and monitor patients on ART, could also create conditions for accelerated development of HIV resistance to antiretroviral (ARV) drugs. It is thus important to evaluate the outcome and effectiveness of ART programmes in routine care settings in resource-limited countries to evaluate whether the empirical second-line treatment recommended by WHO would still be effective.

Togo is a small country of 5.5 million inhabitants, located in west Africa, with an estimated HIV prevalence of around 3% in the general population [3]. Scaling up of ART started in 2007, and approximately 7000 HIV-1-infected individuals were receiving ART by the end of 2007. Treatment became free of charge by the end of 2008 and, today, more than 17,000 people are receiving ART, which corresponds to coverage of 33%. Here we describe virological outcome and emergence of drug resistance in a cross-sectional study among HIV-1-infected patients treated according to the national guidelines in hospitals in Lomé, the capital city of Togo.
Methods and Materials: How did you study your question?

- Validates your study
- Use subheadings to organize this section if needed
- Details on ethical approval and patient consent
- Detailed enough to allow replication
  - Procedures, materials used, data collected, data analysis and statistical methods
- Past tense

- **No results yet!**
Methods

• Who? ...was the study population?
• What? ...was the primary outcome?
• How? ...was the outcome measured?
• Where? ...did the study take place?
• When? ...was the data collected?

Sufficient details  Word limit of manuscript
How to write a research manuscript
Part 2: Mark Wainberg
Results: What findings did your question generate?

• What is the best way to present your data: table, figure or text?
  – Avoid repetition
  – Be specific

• Present only the results relevant to your question

• Relate results to methods, but do not describe them again

• **Do not discuss yet! And be precise!**

Careful with the word ‘significant’ and vague terms (some - many - few)
Results: Gender analysis

- Study participants
  - Sex/Gender numbers
  - Single-sex study, ...why?

- Sex-disaggregated data
  - Reporting results of sub-populations

- Gender analysis
  - Effect of..., associated with...?
Figures – Vote Exercise

Which of these graphs is better to show change over time?

A.

B.

Figures: different figures for different messages

A line graph is better to show data over time or trends

Figures: different figures for different messages

A bar graph would work better for a different type of data for example ratios

Source: UNAIDS/WHO, 2006
Figures and Tables

- Only when helpful to convey information
- Should be understandable without text
- Choose type based on the kind of data you have
- Avoid overlap with text
- Informative titles and additional details in legend
- Label all axes, columns and rows
- Careful with colours (colour blindness and black/white printing)
Discussion: How did the findings answer your question?

• Do not repeat results, but should be based on the results!
• Discuss the importance and implications of your findings
• Use separate paragraphs for different points you are making
• Use key references to place your study within context

• Did the results answer your question?
In our study, more than 35% of patients attending the Themba Lethu Clinic in Johannesburg, South Africa, failed to attend at least one clinic visit on time in the first six months of treatment. This finding is consistent with previous reports, from industrialized countries, documenting 25%-44% of recently diagnosed HIV-infected individuals failing to adhere to scheduled visits early on in their care or treatment [28-32].

Documenting the amount of missed visits early on in treatment is critical because of its potential implications for poorer treatment outcomes. Previous studies have shown that patients who miss visits soon after initiating ART are at increased risk of early mortality and loss [16,17].

Our data are not able to elucidate the specific mechanisms by which missing visits lead to poorer outcomes, but it is likely that this is a marker for poor adherence.

Our results also support previous research showing that older patients mount poorer CD4 cell count responses [33].

Surprisingly, we did not detect a relationship between CD4 count and missed visits in our population. Distrust in the healthcare system, stigmatization of those infected by their communities and patient financial constraints could also play a major role in how adherent patients are to visit schedules in a resource-limited setting [39].

Brennan et al, JIAS 2010, 13:49
Limitations and Conclusions

Limitations

• Last paragraph before conclusion
• You can mention the strengths of the study
• Discuss any limitations including
  – how do they affect your data
  – if applicable how you addressed them
  – any further implications
  – mention all relevant ones

Conclusions

• Main take-home messages
• More general, but not overgeneralize!
• Wider implications, recommendations and future research
1. Biomarker testing was completed for 1108 participants out of the total sample of 1127 IDUs.
2. Five cross-sectional surveys of IDUs were conducted in Georgia in 2009.
3. Comparison with our study findings demonstrates increases in HIV prevalence in both locations.
4. The study protocols and questionnaires were approved by the Ethics Review Committee.
5. HIV prevention in this sub-population, therefore, may lie in strengthening harm-reduction programmes.
6. Major characteristics of the sample were median age 35 years, male 98.7% and married 49.7%.
7. Injection drug use remains a major risk factor for HIV transmission.
8. More research is required to analyze the determinants of HIV risk in Georgian IDUs.
1. Biomarker testing was completed for 1108 participants out of the total sample of 1127 IDUs. **Results**

2. Five cross-sectional surveys of IDUs were conducted in Georgia in 2009. **Methods**

3. Comparison with our study findings demonstrates increases in HIV prevalence in both locations. **Discussion**

4. The study protocols and questionnaires were approved by the Ethics Review Committee. **Methods**

5. HIV prevention in this sub-population, therefore, may lie in strengthening harm-reduction programmes. **Discussion**

6. Major characteristics of the sample were median age 35 years, male 98.7% and married 49.7%. **Table**

7. Injection drug use remains a major risk factor for HIV transmission. **Introduction**

8. More research is required to analyze the determinants of HIV risk in Georgian IDUs. **Discussion**

Adapted from Chikovani et al, JIAS 2011
Which section of a manuscript usually contains the most errors?
References

• Credibility
  – Knowledge and awareness of the field
  – Validate your claims and arguments

• Format your references according to the journal’s guidelines

• Read your sources!!
How to choose a journal and submit a manuscript

Papa Salif Sow
What influences your choice of journal?
Choosing a journal

- Coverage by indexing
- Open access
- Cost
- Journal’s prestige (e.g. impact factor)
- Speed of editorial decision
- Readership
- Colleague’s recommendation
Manuscript submission

To do and not to do in manuscript submission

Adapted slides courtesy of Elise Langdon-Neuner, Thomas Babor and Kerstin Stenius
Where are the instructions?

- Instructions for authors: journal webpage
- Examine a recent issue of the journal
- Uniform Requirements for Manuscripts submitted to Biomedical Journals (ICMJE) [www.icmje.org]
- EQUATOR network [http://www.equator-network.org/] for example CONSORT (Consolidated Standards of Reporting Trials) [www.consort-statement.org]
Most often ignored instructions

• **Word counts**

• **Reference formats**: in-text citations or referencing incorrect

• **Tables/figures**: inserting in the text rather than at the end of the manuscript or as separate files

• **Poor quality**: figures/photos or non-standard formats

• **Abbreviations**: failure to write out the first time they are written in the manuscript
Cover letter

• Statements of manuscript submitted to one journal only and not previously published.

• Your chance...
  – to highlight the importance of your study
  – to explain why manuscript of interest to journal
Dear Sir/Madam

Greetings!

Please find attached an original manuscript for consideration of publication in your esteem journal. It will be an honor bestowed upon us that International journal of repute would accept our publication and with this philosophy we are submitting the same. Hopefully it qualifies the strict editorial review and provides us with an encouraging feedback to work still better.

Kind regards
Dear Editor

We are pleased to submit our manuscript for consideration for publication in Journal of Excellent Research.

This article describes the first study on HIV testing behaviour among people who use drugs and their intimate partners in Thailand. The results of this study are important for the development of targeted testing strategies for this key affected population.

We believe that our article is of interest to the Journal of Excellent Research as it falls within the scope of the journal on publishing psychological studies of vulnerable populations. In addition its open access would ensure a wide distribution of our results.

The manuscript is original research and is not under review with another journal. There are no conflicts of interest in the conduct and the reporting of the research. All authors have read and approved the manuscript.

With best wishes
Editorial decision making and common reasons for rejection

Shirin Heidari
Editorial black box

Online submission → Initial decision by Editors → Reviewed by at least 2 selected experts → Revision

Revision → Accept → Published in JIAS - open access

Reject → Revisions / Mentoring → Revision reviewed
Editor’s checklist upon submission

- Does the manuscript fit within the **scope**
- Is the **objective** of the study clear
- Are the results **important**
- Does the study contribute something **novel**
- Is the study design and methodology **valid**
- Is the presentation of good **quality**
Common reasons for instant rejection

*Journals have a duty to avoid wasting reviewer time and undue delays in responding to authors*

- Not within journal’s scope
- Manuscript type unacceptable
- Ignores instructions to authors
- Major methodological weakness
- Clear ethical problems
- No clear hypotheses / objective
- Incorrect analysis & conclusion
- Nothing new
Responding to peer reviewers and revising your manuscript

Mark Wainberg
Peer reviewer comments - categorising

- Difference of opinion irresolvable
- Request impossible
- Request possible, but impractical
- Difference of interpretation
- Request acceptable
Replies to reviewers’ comments

• Point-by-point reply

• Comply with as many reviewer requests as possible

• Disagree or explain reasons for non-compliance politely and well-argued

• Keep your reply short and to the point

• Revise your manuscript carefully in light of the reviewers’ comments. If they did not understand something, chances are your readers won’t either.
Practical hints to make editors happy

• Copy-paste reviewers’ comments in the order provided, number them if necessary

• Distinguish the reviewers’ comments from your responses for example by using bold font.

• Detail exactly what has been changed. Do not just say “This has been corrected”.

• Use track changes or if too extensive, highlight sections that have been changed in the manuscript.
Scientific integrity in publishing
or
The seven deadly sins
Mirjam Curno
1. Carelessness

**Includes:** Citation bias, understatement, negligence

**Examples:** Faulty statistical analyses, research methods incomplete, selective citation, unread references

**Consequences:** Request for correction, letter to editor
2. Redundancy

**Includes:** Salami publications

**Examples:** Publish several papers with minimal data from one study

**Consequences:** Rejection of manuscript, copyright infringement

**Prior publication:** Key is whether prior publication was work in progress or completed work; conference abstracts, posters = work in progress
3. Unfair authorship (ghost and guest authors)

**Includes:** Failure to include eligible authors, honorary authors

**Examples:** Head of department

**Consequences:** Angry colleagues, complaints to editor or institution
4. Undeclared competing interest

**Includes**: Personal, professional and financial

**Examples**: Stock or share ownership, payment for lectures or travel, board membership

**Consequences**: Notification in the journal, possibly retraction of the article, mistrust among colleagues
5. Subject violations

Includes: Human and animal

Examples: No ethical review board approval for study

Consequences: Rejection of manuscript, notification of institution, legal case

Slides courtesy of Tom Babor
6. Plagiarism

**Includes:** Undisclosed sources, self-plagiarism

**Examples:** Copying of text without references, unattributed data

**Consequences:** Rejection or retraction of article, notification of institution
7. Fraud

Includes: Cooking, trimming, forging

Examples: Selective reporting, altering or fabricating data

Consequences: Retraction of manuscript, notification of institution, funding ban
Question & Answer time
Chair: Shirin Heidari
YOUR questions ...

that you always wanted
to ask an editor

What editors want?

What are the reasons for immediate rejection?

How are peer-reviewers chosen?
Terima Kasih
Thank you
How did we do?

• Please take a minute to fill out our evaluation form.
• Slides available at [www.jiasociety.org](http://www.jiasociety.org)
• See [www.healthe.foundation.net](http://www.healthe.foundation.net) for e-course on how to write a conference abstract
• Many thanks for your participation and good luck with your manuscripts.