### PROMOTING PATIENT SAFETY THROUGH PHARMACY PRACTICE, TECHNOLOGY AND RESEARCH

### Writing for Publication Workshop







### Workshop Intro ....

#### Aim

 To consider writing for publication and reflect on own circumstances to enable them to be more effective in research dissemination

#### Objectives

- To describe the general steps involved in writing for publication
- To consider **factors in the choice of journal** for publication
- To identify the **steps in the process** for writing for publication
- To understand the process of submission and postsubmission feedback and responses
- To understand the importance of 'social network' for research

### **General Steps**

- Review aim / objectives of study
- Complete analysis
- Consider strategy for publication 1 + papers
- Review journal areas of interest, authors instructions, informal approach to editor
- Choose journal(s) aim high, be realistic
- Write paper and submit
- Get outcome and feedback
- 🤣 Respond 🛛 OR 🛛 😧 move on !
- Published manage 'social networks' and other (eg internal) databases

# Steps in selecting a journal ....

- Be cautious of solicitations through email
- Journal quality and reputation ... view Journal Website
- Examine the journal metrics, e.g. Impact Factor, SCIMago
- What **ethical commitments** has the journal made?

#### **Other Journal Characteristics ... to consider**

- Subject area(s) of the journal
- General interest Or specialist research
- Significance of reported findings
- Type of published articles (original research, review, case study)

# Impact Factors (IF)

The journal IF is a measure of the frequency with which the "average article" in a journal has been cited in a particular year

- For example, the 2003 impact factor for a journal would be (2003 IF = A/B) calculated as follows:
  - A = the number of times articles published in 2001 and 2002 were cited in indexed journals during 2003
  - *B* = the number of "citable items" (usually articles, reviews, proceedings or notes; not editorials and letters-to-the-Editor) published in 2001and 2002
  - e.g. <u>600 citations</u> = 2 150 + 150 articles

#### This looks simple. Is it too simple?

# Impact Factors (IF)

Tells us **NOTHING** concrete about any <u>specific paper</u> or <u>specific</u> <u>author</u>

- "Assessors" (e.g. granting agencies, promotion committees) may use the impact factor of journals in which you publish as an indicator of the quality of your work
- Does it happen? Routinely!
- Is this fair? No
- Example, 20% of articles published in Nature (IF: 41.4) are never cited

### Other "Citation Count" Metrics

**Immediacy Index** measures the average number of times that an article, published in a specific year within a specific journal, is cited over the course of the same year

**Cited Half-Life** measures the number of years, going back from the current year, that account for half the total citations received by the cited journal in the current year

**Citing Half-Life** identifies the number of years from the current year that account for 50% of the cited references from articles published by a journal in the current year

# Eigenfactor Score (ES)

The ES calculation is based on the number of times articles from the journal published in the past five years have been cited in the particular year

- But it also considers which journals have contributed these citations so that highly cited journals will influence the network more than lesser cited journals
- ES are not influenced by journal self-citation

• ES versus IF?

# Journal Citation Reports<sup>®</sup> (JCR)

A systematic, objective tool to critically evaluate the world's leading journals, with quantifiable, statistical information based on <u>citation data</u>, by Institute of Scientific Information (ISI)

- Discover highest-impact journals
- Identify impact factor trend
- Compare a custom selection of journals
- Analyze self-citations
- Develop and manage journal collections

Available directly at library websites, or via other sites such as ISI's Web of Science

# SCImago Journal Rank (SJR)

SCImago Journal Rank (SJR) is a prestige metric based on the idea that 'all citations are not created equal'

SJR is a measure of scientific influence of scholarly journals that accounts for both the number of citations received by a journal and the importance or prestige of the journals where such citations come from

- Based on Scopus database
- Journal and country ranking: http://www.scimagojr.com/

### H Factor or H Index

Index that attempts to measure both the productivity and impact of the published work of a **scientist or scholar** 

- A scholar with an index of h has published h papers each of which has been cited by others at least h times
- Serves as an alternative to more traditional journal impact factor metrics in the evaluation of the impact of the work of a particular researcher
- Source of data
  - Scopus vs. Web of Science vs. Google Scholar

# **Open Access (OA) Journals**

OA literature is digital, online, free of charge, and free of most copyright and licensing restrictions

- Two primary vehicles for delivering OA: OA journals ("gold OA") and OA repositories ("green OA").
- Advantage:
  - Free for all
  - Increased readership and citation
  - Access for researchers in low-income countries
- Disadvantage:
  - Publication fees
  - Lack of quality control

### **Open Access (OA) Journals**



### Reporting Guidelines: equator network

• Enhancing the **QUA**lity and **T**ransparency **O**f health **R**esearch



- '.. an international initiative .... improve the reliability and value of published health research .... promoting transparent and accurate reporting and ... use of robust reporting guidelines.'
- <u>http://www.equator-network.org/</u>

### **Equator Network Objectives**

- Maintain and further develop ... online resources .... related to health research reporting
- Promote the use of reporting guidelines .... through an education and training ...
- Assist in the development, dissemination and implementation of robust reporting guidelines
- Support journals, universities and other organisations
- Undertake research projects
- Set up a global network of local EQUATOR centres



http://www.equator-network.org/

### Example – STROBE checklist

	Item No	Recommendation
Title and abstract	1	(a) Indicate the study's design with a commonly used term in the title or the abstract
		(b) Provide in the abstract an informative and balanced summary of what was done and what was found
Introduction		
Background/rationale	2	Explain the scientific background and rationale for the investigation being reported
Objectives	3	State specific objectives, including any prespecified hypotheses
Methods		
Study design	4	Present key elements of study design early in the paper
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection
Participants	6	(a) Cohort study—Give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow-up Case-control study—Give the eligibility criteria, and the sources and methods of case ascertainment and control selection. Give the rationale for the choice of cases and controls
		Cross-sectional study—Give the eligibility criteria, and the sources and methods of selection of participants (b) Cohort study—For matched studies, give matching criteria and number of exposed and unexposed Case-control study—For matched studies, give matching criteria and the number of controls per case

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From ... von Elm E, Altman DG, Egger M, Pocock SJ, Gotzsche PC, Vandenbroucke JP. The Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) Statement: guidelines for reporting observational studies. Ann Intern Med. 2007; 147(8):573-577. PMID: <u>17938396</u>

### The Structure of the Paper

#### Indexing and searching the topics:

- Title
- Authors (and affiliations)
- Abstract
- Keywords
- Main text:
  - Introduction
  - Methods
  - Results
  - Discussion
  - Conclusions

#### Acknowledgements, References, and Supplementary Materials.

### **IMRaD** format



#### **Introduction/ Background**

(What did you/others do? Why did you do it?)

- 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

- Literature Review
- Problem statement
- Primary objectives
- Secondary Objectives

#### **Methods**

#### (How did you do it?)

- 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 method



- Study Design
- Population and sampling:
- Data collection
- Ethics
- Analysis

#### Results

(What did you find?)

- 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.)

• Table

• Figure

#### Discussion

(What does it all mean?)

- State the main findings of the study
- Discuss the main results with reference to previous research
- Discuss policy and practice implications of the results
- Analyze the strengths and limitations of the study
- Offer perspectives for future work

- Strengths
- Limitations
- Implication to practice

#### Conclusion

(What is the answer to your research question? What is the importance of the work (applications, recommendations, and implications?)

- Introduce the work and then briefly state the major results.
- State the major points of the discussion.
- End with a statement of how this work contributes to the overall field of study.



### Submission process

Online-submission: Create account (corresponding author)

- Author Centre onscreen instructions
  - Original word processing file to copy/paste information
  - Main document (manuscript text) does not mostly contain title/authorship page
  - Figures and tables are mostly uploaded separately
  - Order of submitted documents is confirmed
- Complete manuscript proof is automatically generated for approval and submission by author
- Confirmation email indicates successful submission
- A manuscript number is used in all future correspondence

### **Research Social Networks**

- Orcid <u>http://orcid.org/about</u>
  - registry of unique researcher identifiers and a transparent method of linking research activities and outputs to these identifiers
- Research Gate <u>https://www.researchgate.net/</u>

mission ... to connect
researchers and make it easy
... to share and access scientific
and expertise



### Activity



# What are the BARRIERS / FACILITATORS in CHANGING BEHAVIOURS to publish more?

### Piano Stairs video ....



### The COM-B Model

# The COM-B system: Behaviour occurs as an interaction between three necessary conditions





### Summary

#### **Basics of Manuscript Preparation & General Writing Tips**

- 1. The importance of this work and relevance of the problem addressed
- 2. The quality of the writing style (language, well-written, clear, and logical)
- 3. The study design and methodology (i.e. appropriate and comprehensive)
- 4. Literature review (focused, and up-to-date)
- 5. Sample size (sufficiently large)

Barbara J. Hoogenboom et al, "HOW TO WRITE A SCIENTIFIC ARTICLE", Int J Sports Phys Ther. 2012 Oct; 7(5): 512-517. PMCID: PMC3474301

### Summary

#### Things to consider when writing a manuscript



• Choose the target journal.

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- Pay attention to journal requirements in the Guide for Authors.
- Pay attention to the structure of the paper.
- Understand publication ethics to avoid violations.

### **Other Web Resources**

- Glanville J, Light K, Stirk L. How to write a good research paper. J Health Serv Res Policy. 2008;13(2):127-128
- **Guyatt GH, Brian Haynes R.** Preparing reports for publication and responding to reviewers' comments. Journal of Clinical Epidemiology. 2006;59(9):900-906
- Wager E. Getting research published: an A to Z of publication strategy. Radcliffe Publishing Ltd, Third Edition, 2015