Embracing new roles: how librarians can encourage and support clinicians and health-related researchers to improve the quality of published research papers

Shona Kirtley, Research Information Specialist, EQUATOR Network, Centre for Statistics in Medicine, Oxford, UK
What is the EQUATOR Network?
Deficiencies in research reporting and the consequences of poor reporting
What are reporting guidelines?
What is the EQUATOR Network doing to help?
How can librarians help?
What libraries are already doing
The EQUATOR International Librarian Network
About EQUATOR

EQUATOR: Enhancing the QUALity and Transparency Of health Research

International initiative to improve the reliability and value of medical research literature by promoting transparent and accurate reporting.

Our main focus:
* Highlighting problems resulting from poor reporting
* Promoting rigorous research reporting (accurate, complete, transparent, timely)
* Provision of online resources
* Education and training
* Research, evaluation, development
* Collaboration

Established due to growing evidence of serious deficiencies in research literature and its effect on the reliability and usability of research results.
Deficiencies in reporting

5 main areas where deficiencies have been identified in the health research literature:

* Non-reporting (or delayed reporting) of studies
* Incomplete reporting
* Selective reporting
* Misleading reporting
* Unacknowledged discrepancies between sources

Recently there has been an explosion in the publication of studies highlighting such poor reporting practices.
Exercise prescription: a case for standardised reporting

Susan Carolyn Slade, Jennifer Lyn Keating:

ABSTRACT
Background: Structured, regular exercise is recommended to improve health outcomes. Exercise takes many forms and varies in type, intensity, duration and frequency. The authors used the example of exercise for chronic health conditions to examine how exercise programmes are described and summarised in reviews.

Methods: Two independent reviewers conducted a narrative review of exercise reporting practices using the literature to describe the potential effectiveness of the exercises. Inclusion criteria: systematic reviews or meta-analyses describing or comparing the effectiveness of exercise programmes for chronic health conditions. Exercise is beneficial for people with cystic fibrosis, chronic obstructive pulmonary disease, inflammatory claudication, knee-osteoarthritis and low-back pain.

EXCLUSION CRITERIA: Exercise is non-specific term. It includes activities that vary in type, frequency, intensity, mode and environmental requirements. It may be conceptualised as a series of specific movement or support exercises that have been developed for exercise for chronic health conditions. Exercise can vary with respect to the type of muscle contraction, load, speed and range of movement, number of repetitions and sets, order of exercises and rest times. It is used to increase strength, endurance, flexibility, function.

An appeal to medical journal editors: the need for a full description of laboratory methods and specimen handling in clinical study reports


Publication Bias in Antipsychotic Trials: A Comparison of Publication Efficacy Comparing the Published Literature and Food and Drug Administration Database

Lee Shapley

Electronic search strategies to identify reports of cluster randomized trials in MEDLINE: low precision will improve with adherence to reporting standards

Monica Taljaard, Jessie McGowan, Jeremy M Grimshaw, Jeremy M Cretin, Andrew McAbbei, Martin P Eccles, Alan Donner

These are the references mentioned in the text.
A research article is ‘end product’ of one process ...

...and ‘raw material’ of other processes

Publication

Informs further research

Systematic review

Clinical practice guideline

Informs health policies and clinical practice
Consequences of poor reporting

Poor reporting is a serious problem particularly for systematic reviews and clinical guideline development (and therefore impacts ultimately upon patient care).

It prevents the inclusion of all eligible studies and comparison across studies:

“This review only found one methodologically sound but somewhat under-reported trial”

“In terms of evaluating the quality of studies, the lack of important information in some of the trial reports has resulted in categorisations of ‘unclear”

“The biggest problem was the quality of reporting, which did not allow us to judge the important methodological items …”

“Data reporting was poor. 15 trials met the inclusion criteria for this review but only 4 could be included as data were impossible to use in the other 11.”

(Cochrane Library, accessed on 18 September 2010 & 8 June 2011)
What are reporting guidelines?

* Statements that provide advice on how to report research methods and findings

* Specify a minimum set of items required for a clear and transparent account of what was done and what was found in a research study

* Typically take the form of a checklist, flow diagram or piece of explicit text

* Based on available evidence and reflect the consensus opinion of experts in a particular field

* Complement advice on scientific writing and journals' instructions to authors

* Some examples include:
How to improve reporting

Guidance on research methods: GCP, GEP...

Reporting guidelines

Guidance on scientific writing & Author Instructions

Research

Translation

Dissemination

Publication
What is EQUATOR doing to help?

* Library for health research reporting
  * Information for authors of research reports
  * Resources for journal editors and peer reviewers
  * Resources for developers of reporting guidelines
  * Information about reporting guidelines currently under development
  * Wide range of other relevant resources

* Database of reporting guidelines
  * Up-to-date and comprehensive collection of reporting guidelines
  * Searchable by browse menu or using free-text

* Education and awareness raising
  * Workshops
  * Attendance at meetings and conferences

* Collaboration
  * PAHO
  * Other collaborative activities
Database of reporting guidelines

Displaying 216 reporting guidelines found.

Most recently added records are displayed first.

1. Launch of a checklist for reporting longitudinal observational drug studies in rheumatology: a EUROLAR extension of STROBE guidelines based on experience from biologics registries

2. The Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) Statement: guidelines for reporting observational studies

3. CONSORT 2010 Statement: updated guidelines for reporting parallel group randomised trials

4. Better reporting of harms in randomized trials: an extension of the CONSORT Statement

5. The CARE Guidelines: Consensus-based Clinical Case Reporting Guideline Development

Translations

Some reporting guidelines are also available in languages other than English. Find out more in our Translations section.

About the Library

For information about Library scope and content, identification of reporting guidelines and inclusion/exclusion criteria please visit About the Library.

Visit our Help page for information about searching for reporting guidelines and for general information about using our website.

Our full catalogue of reporting guidelines is available to download as a PDF.
A new role for Librarians?

Librarians:
* raise awareness about reporting guidelines
* alert researchers to the appropriate reporting guideline to use to report their study

Guidance on scientific writing & Author Instructions
How can librarians help?

Librarians are excellently positioned to raise awareness about reporting guidelines and encourage their use

* **Promotion**
  * Display EQUATOR Network leaflets/posters
  * Include details about reporting guidelines in library bulletins
  * Link to the EQUATOR Network website from library website pages

* **Education**
  * Include information about reporting guidelines in library induction sessions
  * Hold research reporting workshops

* **Researcher support**
  * When supporting the work of clinicians and researchers mention relevant reporting guidelines and how to locate them
  * When presenting the results of literature searches to researchers alert them to the appropriate reporting guideline for reporting their study
What are librarians currently doing?

Research Reporting Guidelines and Initiatives: By Organization

This chart lists the major biomedical research reporting guidelines that provide advice for reporting research methods and findings. They use set of items required for a clear and transparent account of what was done and what was found in a research study, reflecting, in particular, introduce bias into the research (Adapted from the EQUATOR Network Resource Centre). The chart also includes editorial style guides for other publications.

Additional information about these guidelines and/or initiatives can be found using the Research Guidelines Search.

<table>
<thead>
<tr>
<th>ORGANIZATION/GUIDELINE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMA Manual of Style</td>
<td>A manuscript style guide for authors and editors.</td>
</tr>
<tr>
<td>EQUATOR</td>
<td>A standard for the scientific and ethical review of trials.</td>
</tr>
<tr>
<td>Reporting Standards</td>
<td>Proposed standard for the review and monitoring of randomized clinical trials by committees. Checklist incorporates elements of CONSORT, to ensure full disclosure for scientific validity in the critical conduct of clinical research.</td>
</tr>
</tbody>
</table>
As a result of adopting some simple awareness raising practices librarians can:

* Indirectly improve the reliability of literature searching and indexing
* Help improve the quality of the research papers written by staff within their organisation
* Help ensure that research studies provide a more reliable basis for making clinical decisions or for inclusion in further research
* Help the results of research be transferred into practice
* Demonstrate to the head of their organisation that the library is playing a fundamental role in improving the quality of the research output of the organisation

Most importantly...librarians will be playing a central role in improving not only the quality and subsequent usability of published health research but also advancing the global body of health knowledge and ultimately improving patient care!
EQUATOR International Librarian Network (1)

**Exciting new role for librarians!**

* Establish an EQUATOR International Librarian Network
  * Free-to-join virtual network organised by the EQUATOR Network
  * Through the help of librarians who join the network we will work together to raise awareness about and encourage the use of reporting guidelines by researchers around the world

* The network will provide:
  * Help & advice
  * Training
  * Resources
  * Regular updates
  * Email discussion list
  * Country directory

...to enable librarians to confidently discuss available reporting guidelines with the clinicians and researchers with whom they work.
Early stage of development

* Set-up an advisory group to help develop the network and advise on key issues
* Identify country representative librarians who can act as focal points in their own country
* Develop a number of practical and topic specific librarian toolkits
* Hold regular webinars offering training for librarians, providing help and support and Q&A sessions
* Translate all our materials into other languages to enable librarians to raise awareness more easily
* Develop a country directory allowing librarians to identify possible collaborators within their own country
* Raise funding for network activities
Opportunities

We are very keen for librarians to get involved...please do consider:

* Volunteering to join our advisory group or become a country representative
* Contributing your ideas and experiences to our toolkit development and resources
* Suggesting ideas for other relevant activities that the network could support
* Simply join the network and start raising awareness about reporting guidelines

Are you ready and willing to embrace a new role and make a real difference?!
* EQUATOR Steering Group

* Doug Altman, Centre for Statistics in Medicine, UK
* John Hoey, University of Toronto, Canada
* Ana Marusic, University of Split, Croatia
* David Moher, Ottawa Health Research Institute, Canada
* Kenneth F. Schulz, Family Health International, Chapel Hill, USA

* Many thanks to both Professor Doug Altman and Dr Iveta Simera for permission to reproduce a couple of their slides and for helpful comments on this presentation.
EQUATOR Network:
www.equator-network.org

Contact: shona.kirtley@cs.m.ox.ac.uk