How to implement effective interventions?

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How to improve research papers (and increase journal quality)?

- Implementing reporting guidelines?
- Training authors/reviewers/editors?
- Influencing other stakeholders (funders, government, public)?
Implementing reporting guidelines – evidence


**Consolidated standards of reporting trials (CONSORT) and the completeness of reporting of randomised controlled trials (RCTs) published in medical journals.**

**CONCLUSIONS:**
The results of this review suggest that journal endorsement of CONSORT may benefit the completeness of reporting of RCTs they publish.

... despite relative improvements when CONSORT is endorsed by journals, the completeness of reporting of trials remains sub-optimal. Journals are not sending a clear message about endorsement to authors submitting manuscripts for publication.
CONCLUSIONS:
Insufficient evidence exists to determine the relation between journals' endorsement of reporting guidelines and the completeness of reporting of published health research reports. Journal editors and researchers should consider collaborative prospectively designed, controlled studies to provide more robust evidence.
Implementing reporting guidelines – evidence

Fuller T, Pearson M, Peters J, Anderson R.

What affects authors' and editors' use of reporting guidelines? Findings from an online survey and qualitative interviews.

RESULTS:
Four types of factors interacted to affect authors' and editors' likelihood of reporting guideline use:
1. individual (eg, having multiple reasons for use of reporting guidelines)
2. the professional culture in which people work
3. environmental (eg, policies of journals)
4. practical (eg, having time to use reporting guidelines)
Having multiple reasons for using reporting guidelines was a particularly salient factor in facilitating reporting guidelines use for both groups of participants.
Grindlay DJ, Dean RS, Christopher MM, Brennan ML.

A survey of the awareness, knowledge, policies and views of veterinary journal Editors-in-Chief on reporting guidelines for publication of research.


RESULTS:

35.1% respondents said their journal referred to reporting guidelines in its instructions to authors. CONSORT, REFLECT, and ARRIVE were the most frequently cited. 68.2% respondents believed that reporting guidelines should be adopted by all refereed veterinary journals.

Lack of knowledge, fear, resistance to change, and difficulty in implementation were perceived as barriers to the adoption of reporting guidelines by journals.
Implementing reporting guidelines – evidence


CONCLUSIONS:
Only few guidelines were developed complying with the Guidance. More attention should be paid to the quality of reporting guidelines.

Implementing reporting standards: experience from a journal


Editorial

A new standard for reporting clinical research in the Journal of Pediatric Surgery
Implementing reporting standards: experience from a journal

Table 1: Guidelines for the reporting of clinical research data in the *Journal of Pediatric Surgery*

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Additional details for studies reporting more than one treatment group (e.g. controls):

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<th>Reported</th>
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<tr>
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<td>Mean and range for all relevant demographic and baseline variables for all treatment groups.</td>
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<td>☐</td>
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<td>The range and median (not mean) for length of follow-up reporting for each treatment group.</td>
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<td>☐</td>
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<td>A precise timeline during which all patients were treated for each group</td>
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<td>Outcome variables being compared between groups are presented with appropriate measures of variability (e.g. standard deviation)</td>
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<td>☐</td>
<td>☐</td>
<td>Measures of type II error (P-values) for comparison statistics are presented with actual values if $P = .01$ or larger (e.g. $P = NS$ and $P &lt; .05$ are not acceptable)</td>
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<tr>
<td>☐</td>
<td>☐</td>
<td>A description of how patients were selected into each treatment group</td>
</tr>
<tr>
<td>☐</td>
<td>☐</td>
<td>A statement is made as to whether the same surgeons operated on patients from different treatment groups</td>
</tr>
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</table>
Results of a longitudinal study of rigorous manuscript submission guidelines designed to improve the quality of clinical research reporting in a peer-reviewed surgical journal

Kathryn E. Wynne\textsuperscript{a}, B. Joyce Simpson\textsuperscript{a}, Loren Berman\textsuperscript{a}, Shawn J. Rangel\textsuperscript{b}, Jay L. Grosfeld\textsuperscript{c}, R. Lawrence Moss\textsuperscript{a,\*}

\textsuperscript{a}Department of Surgery, Yale School of Medicine, New Haven, CT, USA
\textsuperscript{b}Department of Surgery, Children's Hospital, Boston, MA, USA
\textsuperscript{c}Department of Surgery, Indiana University School of Medicine, IN, USA
Mean global composite scores increased from 72.2 pre-Guidelines to 80.1 post-Guidelines ($P<0.0001$).

Scores increased in each subcategory:
Methods, 71.9 to 78.6 ($P<0.0001$)
Results, 77.2 to 83.0 ($P=0.002$)

Post-Guidelines implementation scores have increased over time.
Training authors/reviewers/editors – evidence


OBJECTIVES:
To investigate whether training in writing for scholarly publication, journal editing, or manuscript peer review effectively improves educational outcomes related to the quality of health research reporting.

CONCLUSIONS:
Included studies were generally small and inconclusive regarding the effects of training of authors, peer reviewers, and editors on educational outcomes related to improving the quality of health research. Studies were also of questionable validity and susceptible to misinterpretation because of their risk of bias.
Marušić A, Wager E, Utrobičić A, Rothstein HR, Sambunjak D.

**Interventions to prevent misconduct and promote integrity in research and publication**

Cochrane systematic review, submitted

Impact of research integrity interventions at 4 levels: 1) organizational change attributable to intervention, 2) behavioural change, 3) acquisition of knowledge/skills, and 4) modification of attitudes/perceptions.

The evidence-base relating to research integrity is incomplete and hard to synthesize. There is little evidence that training in responsible conduct of research is effective in reducing research misconduct, except for some evidence that training about plagiarism, especially if it involves practical exercises and use of text-matching software, may reduce the occurrence of plagiarism.
Barnes C, Boutron I, Giraudeau B, Porcher R, Altman DG, Ravaud P.

Impact of an online writing aid tool for writing a randomized trial report: the COBWEB (Consort-based WEB tool) randomized controlled trial.


CONCLUSIONS:
Use of the WAT could improve the completeness of manuscripts reporting the results of RCTs.
Influencing other stakeholders?

Can medical journals lead or must they follow?

Richard Smith

MJA • Volume 183 Number 11/12 • 5/19 December 2005

Related to journals

YES

Registering of trials

NO

Raising the profile of ageing

YES

With other journals

NO

Open peer review

Rationing Agenda Group
Influencing other stakeholders?

Figure 2. New Trials Registered in ClinicalTrials.gov, According to Week.

Influencing other stakeholders?

“A subject that needs reform should be kept before the public until it demands reform.”

Hugh Clegg, Editor of the BMJ from 1947 to 1965 believed that:
“A subject that needs reform should be kept before the public until it demands reform.”

Can small journals provide leadership?

Ana Marušić, Matko Marušić

Lancet 2012; 379: 1361-63
Quality assurance in editing?

Guidelines
Standards
Editorial policies

Structure

Process

Outcome

End result of care:
Are we getting better in responsible publishing?

Declaring contributions and conflicts
Verifying integrity of articles
Handling allegations
Correcting literature