Mapping of Methodologies Used in Retraction Reviews

Janice Kung, University of Alberta
Melissa Helwig, Dalhousie University

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▪ Nothing to declare.
OVERVIEW

▪ Background
▪ Methods
▪ Preliminary Results
▪ Next Steps
1. BACKGROUND
WHAT ARE RETRACTION PUBLICATIONS?

- Self-correcting mechanism in science
- “A public statement made about an earlier statement that withdraws, cancels, refutes, or reverses the original statement.”
  (PubMed Health Glossary)
WHY CARE ABOUT RETRACTED STUDIES?

- Retracted papers are increasing
- Post-retraction citations problematic

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**RETRACTED: Ileal-lymphoid-nodular hyperplasia, non-specific colitis, and pervasive developmental disorder in children**

Dr. AJ Wakefield, FRCS, SH Murch, MB, A Anthony, MB, J Linnell, PhD, DM Casson, MRCP, M Malik, MRCP, M Berelowitz, FRCPsych, AP Dhillon, MRCPath, MA Thomson, FRCP, P Harvey, FRCP, A Valentine, FRCR, SE Davies, MRCPath, JA Walker-Smith, FRCP

Published: 28 February 1998

 DOI: https://doi.org/10.1016/S0140-6736(97)11096-0
LITERATURE ON RETRACTED STUDIES

- Reviews for retracted papers are growing
- Studies on retraction expanding across disciplines
- Potential for librarian involvement
RESEARCH
MISCONDUCT & TOOLS

- **Office for Research Integrity** (definitions)
- **COPE**: Committee on Publication Ethics
- **ICMJE**: International Committee of Medical Journal Editors
**STROBE = Strengthening The Reporting of Observational studies in Epidemiology**

Example from recommendations:

<table>
<thead>
<tr>
<th>Variables</th>
<th>Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data sources/measurement</td>
<td>For each variable of interest, give sources of data and details of methods of assessment (measurement). Describe comparability of assessment methods if there is more than one group</td>
</tr>
<tr>
<td>Bias</td>
<td>Describe any efforts to address potential sources of bias</td>
</tr>
</tbody>
</table>
2. RESEARCH QUESTION
What are the methodologies used in retracted review papers?

**Aim:** Map the methodologies used in retraction reviews in health sciences.
Search conducted January 31, 2018.

Comprehensive search of literature:
- MEDLINE
- Embase
- CINAHL

Screening via Covidence.
MEDLINE SEARCH

1. (retract* adj3 (paper* or article* or publication* or publish* or research* or notice or study)).ti,ab,kw.
2. exp "Retraction of Publication"/ or exp Retracted Publication/
3. exp "Retraction of Publication as Topic"/
4. 1 or 2 or 3
5. scientific misconduct.mp. or exp Scientific Misconduct/
6. (publishing ethics or publishing misconduct or compromised peer review or plagiarism or duplication or fraud* or authorship or non-reproducibility or "not reproducible").mp.
7. 5 or 6
8. 4 and 7
9. remove duplicates from 8
10. limit 9 to english language
INCLUSION / EXCLUSION CRITERIA

**Inclusion**
- Meta-analysis or synthesis that tracks retracted publications
- Primary research
- Health sciences

**Exclusion**
- Studies that review only one article or single retraction
- Editorials, letters
- Topics other than medicine or health-related topics
3,879 references imported

3,343 studies screened

83 full-text studies assessed for eligibility

51 studies included

536 duplicates removed

3,260 studies irrelevant

32 studies excluded
3. PRELIMINARY RESULTS
DATA EXTRACTION

- Academic vs. Corporate authorship
- Librarian involvement
- Subject coverage
- Guidelines used
- Reasons for retraction
- Databases clearly identified
- Full search strategy (and replicability)
ACADEMIC VS. CORPORATE AUTHORSHIP

- Academic: 34 articles
- Corporate: 8 articles
- Academic & Corporate: 8 articles
- Government: 1 article
LIBRARIAN INVOLVEMENT / COLLABORATION

- Yes: 9
- No: 42

Yes | No
SUBJECT COVERAGE

- All Topics (6)
- Anesthesiology (1)
- **Biomedical literature** (27)
- Dentistry (1)
- Drug literature (1)
- Emergency medicine (1)
- General/internal medicine (1)

- Medicine (1)
- Neurosurgery (1)
- Orthopaedics (2)
- Psychology (2)
- Radiology (1)
- Rheumatology (1)
- Surgery (1)
- Other (3)
GUIDELINES USED

- No - 33
- Yes - 18
REASONS FOR RETRACTION

- Duplication
- Plagiarism
- Fabrication
- Replication
- Ethical issues
- Author issues
- Honest errors
- Admin errors
- Copyright
- No reasons
- Unclear
DATABASES & SEARCH ENGINES USED

- Biomed Central: 1
- CINAHL: 1
- Cochrane: 2
- Embase: 2
- Google/Scholar: 4
- Hand searching: 2
- Index Medicus: 1
- Journal Citation Reports: 4
- KoreaMed: 1
- LILACS: 1
- Medline: 13
- Pubmed: 26
- Retraction Watch: 5
- Scopus: 1
- Web of Science: 17
- Other: 5
### Replicable studies

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<thead>
<tr>
<th>Category</th>
<th>Count</th>
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<tbody>
<tr>
<td>Full search strategy</td>
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<tr>
<td>Replicable</td>
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</tr>
<tr>
<td>Likely replicable</td>
<td>9</td>
</tr>
<tr>
<td>Not replicable</td>
<td>16</td>
</tr>
<tr>
<td>None</td>
<td>3</td>
</tr>
<tr>
<td>N/A</td>
<td>5</td>
</tr>
</tbody>
</table>
4. NEXT STEPS
THANKS!

Questions?

- janice.kung@ualberta.ca
- melissa.helwig@dal.ca

Presentation template by SlidesCarnival
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LENGTH OF STUDY

Range of years for study

- 1 to 10: 13
- 11 to 20: 9
- 21 to 30: 5
- 31 to 40: 7
- 40 to 50: 3
- Since inception: 11
- N/A: 3