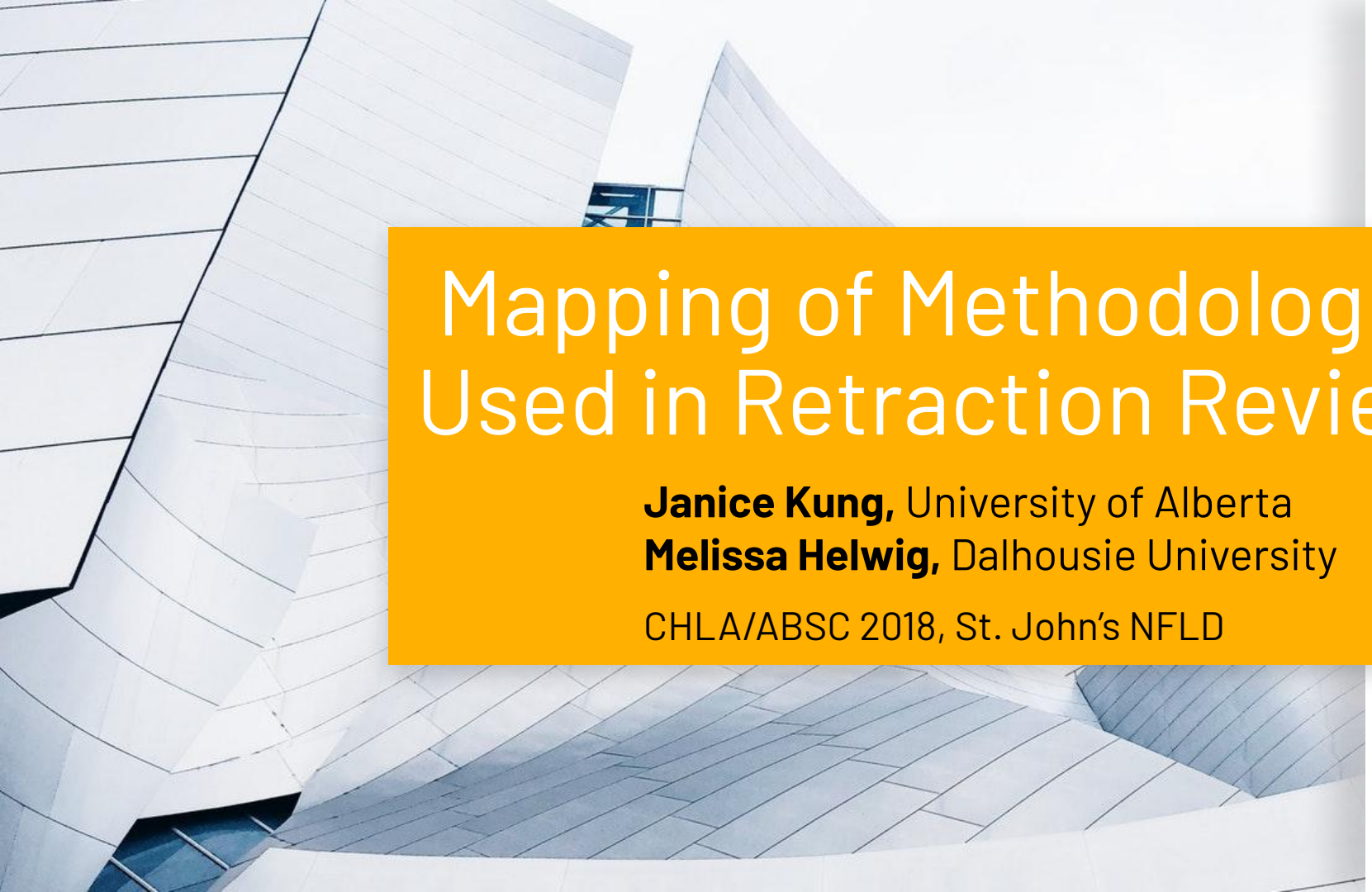


Mapping of Methodologies Used in Retraction Reviews

Janice Kung, University of Alberta
Melissa Helwig, Dalhousie University

CHLA/ABSC 2018, St. John's NFLD

CONFLICT OF INTEREST

- Nothing to declare.

OVERVIEW

- Background
- Methods
- Preliminary Results
- Next Steps

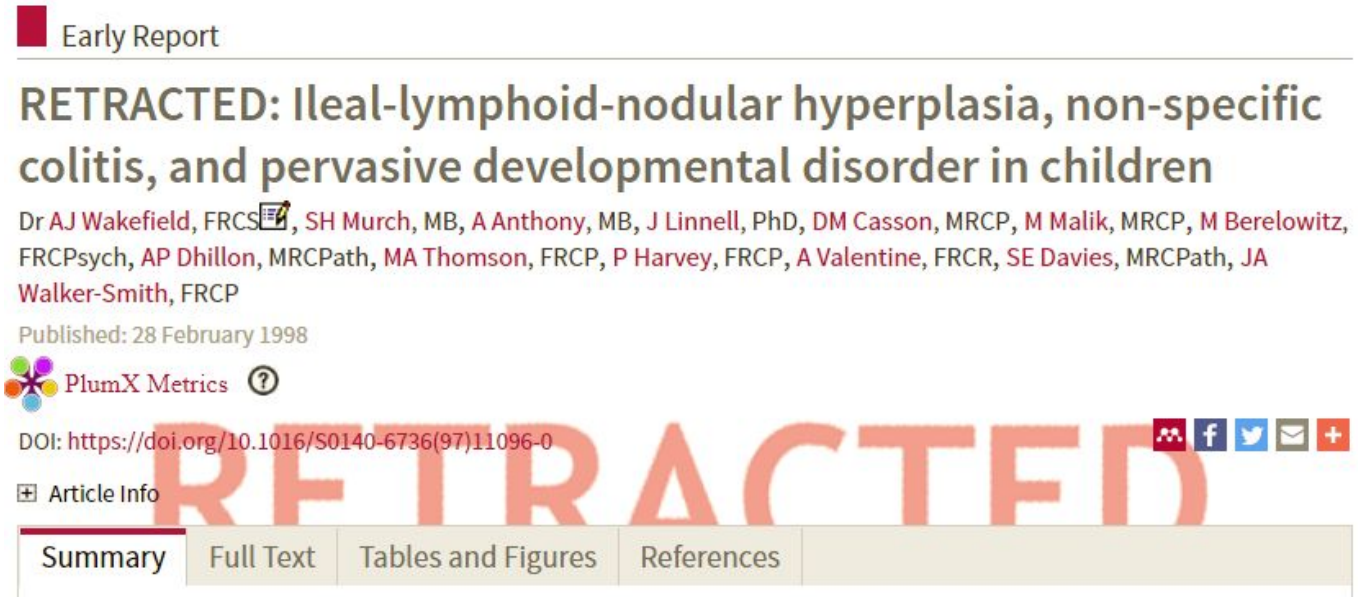
1. BACKGROUND

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



Early Report

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

PlumX Metrics

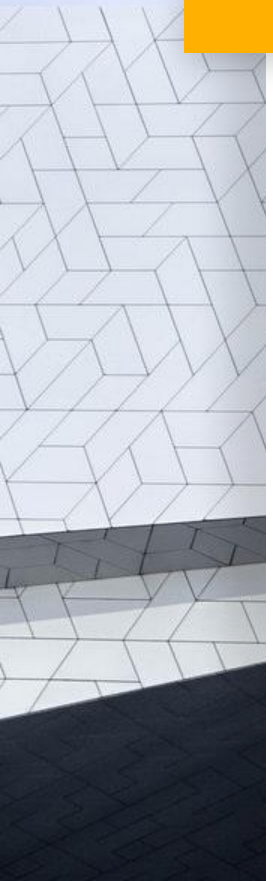
DOI: https://doi.org/10.1016/S0140-6736(97)11096-0

Article Info

RETRACTED

Summary | Full Text | Tables and Figures | References

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

GUIDELINES & FRAMEWORKS

- STROBE = **S**trengthening **T**he **R**eporting of **OB**servational studies in **E**pidemiology

Example from recommendations:

Variables	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable
Data sources/ measurement	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
Bias	Describe any efforts to address potential sources of bias

2. RESEARCH QUESTION

What are the methodologies used in retracted review papers?

Aim: Map the methodologies used in retraction reviews in health sciences.

METHOD

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

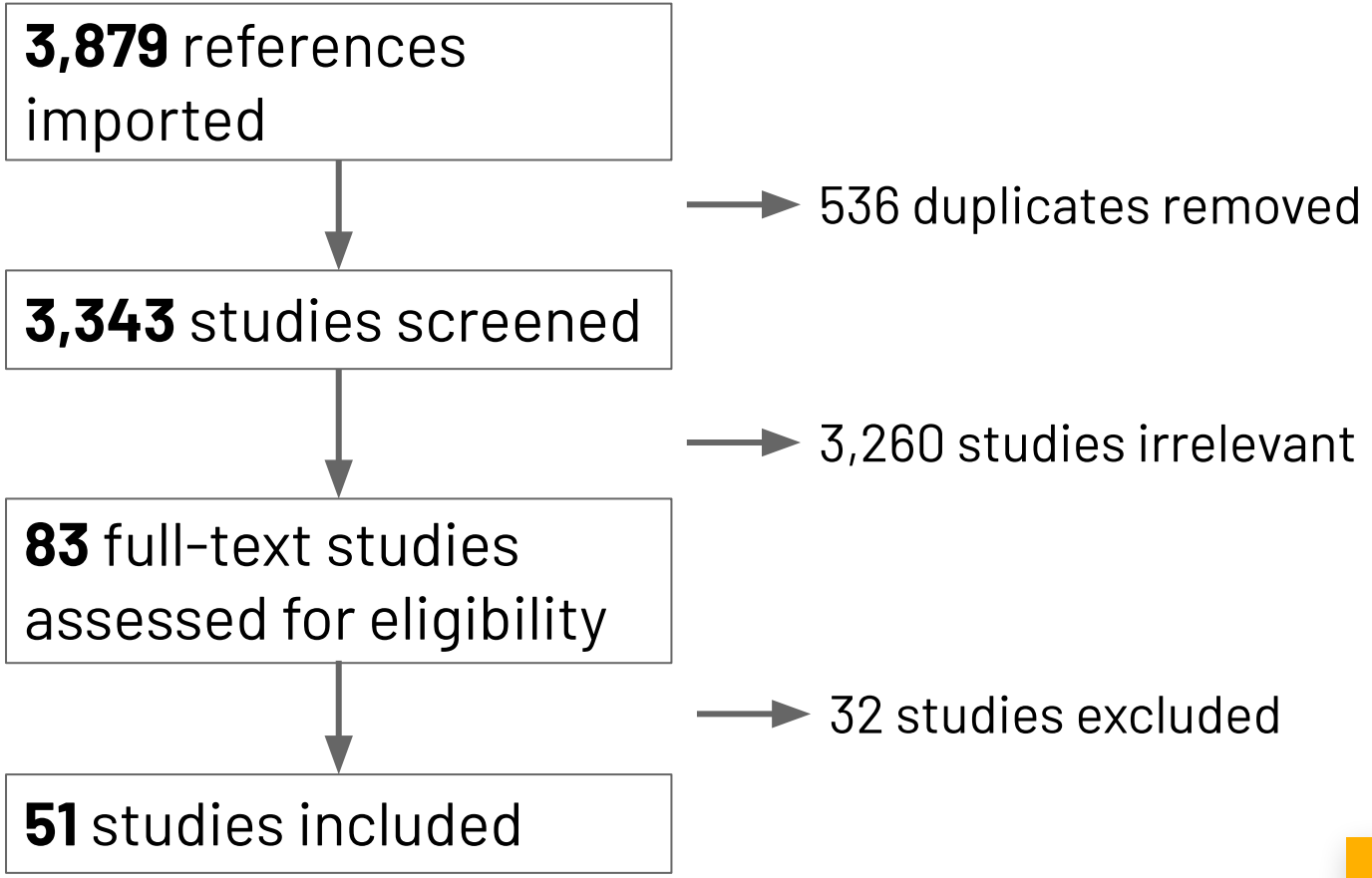
Inclusion

- 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

PRISMA

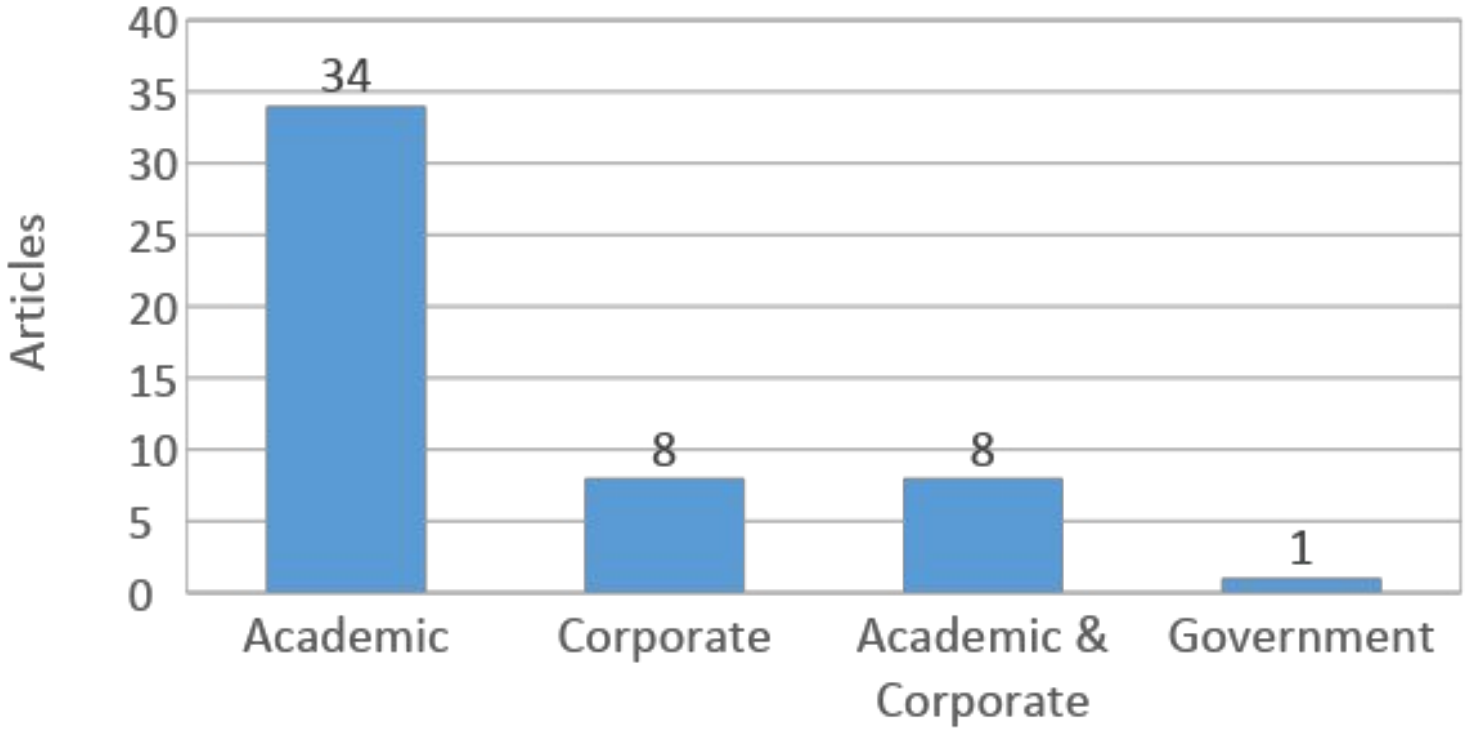

3,879 references imported
536 duplicates removed
3,343 studies screened
3,260 studies irrelevant
83 full-text studies assessed for eligibility
32 studies excluded
51 studies included

3. PRELIMINARY RESULTS

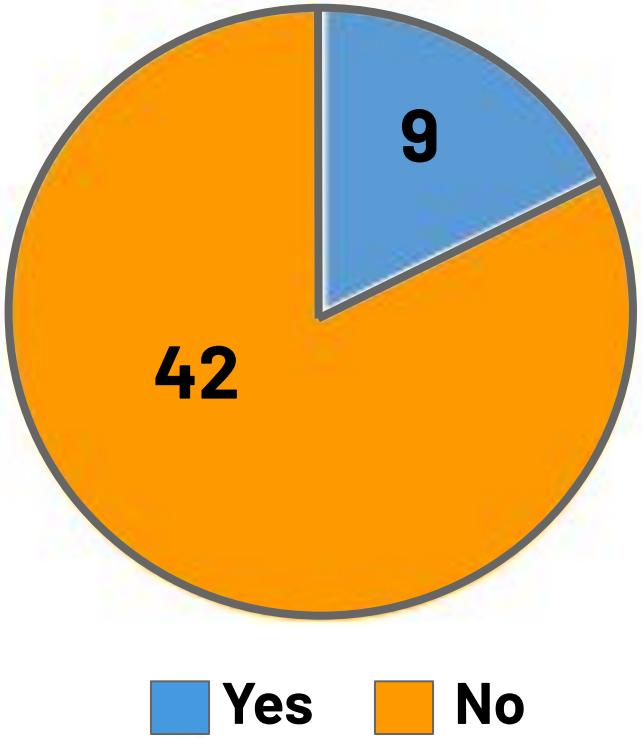
DATA EXTRACTION

- 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

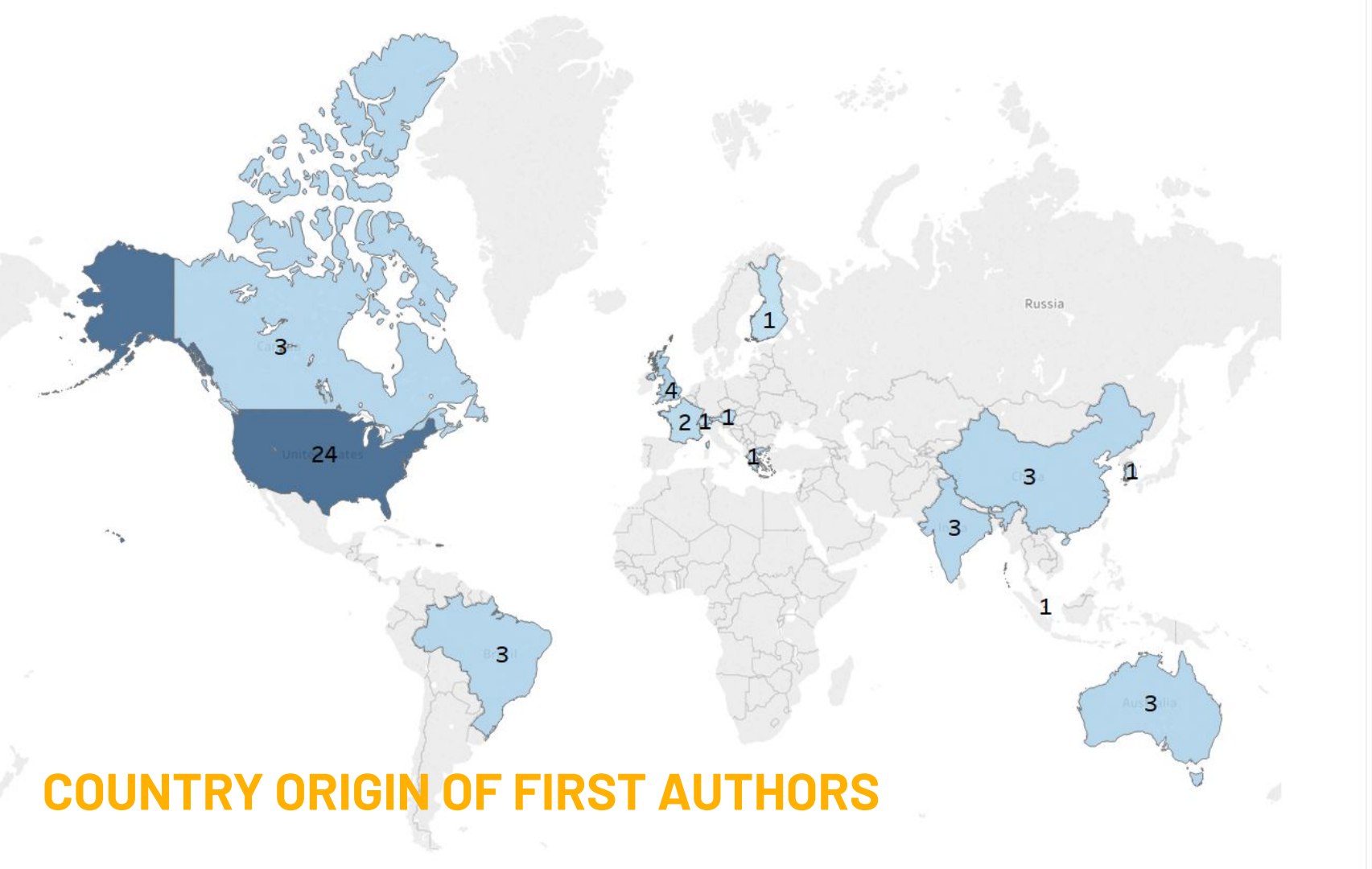


LIBRARIAN INVOLVEMENT / COLLABORATION



SUBJECT COVERAGE

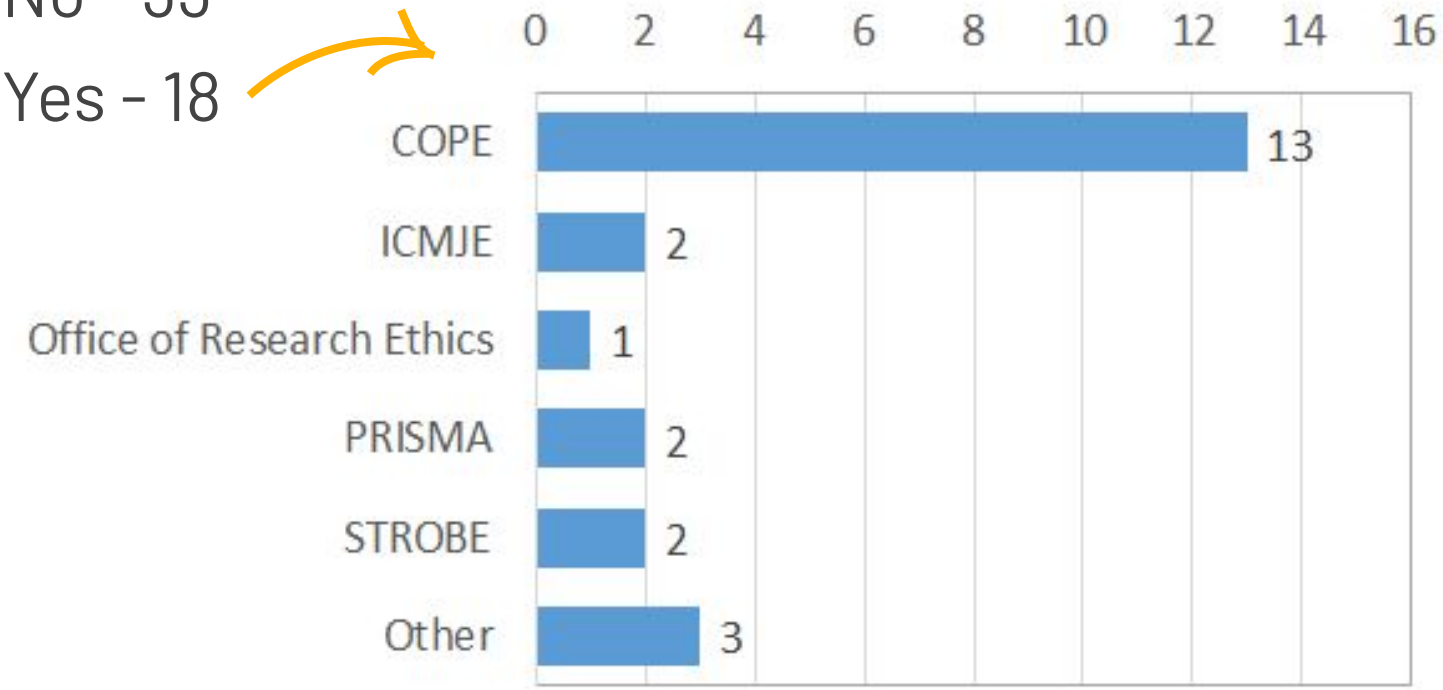
- All Topics (6)
- Anesthesiology (1)
- Biomedical literature (27)
- Dentistry (1)
- Drug literature (1)
- Emergency medicine (1)
- General/internal medicine (1)
- Medicine (1)
- Neurosurgery (1)
- Orthopaedics (2)
- Psychology (2)
- Radiology (1)
- Rheumatology (1)
- Surgery (1)
- Other (3)



COUNTRY ORIGIN OF FIRST AUTHORS

GUIDELINES USED

- No - 33
- Yes - 18



REASONS FOR RETRACTION

Misconduct

- Duplication
- Plagiarism
- Fabrication
- Replication
- Ethical issues
- Author issues

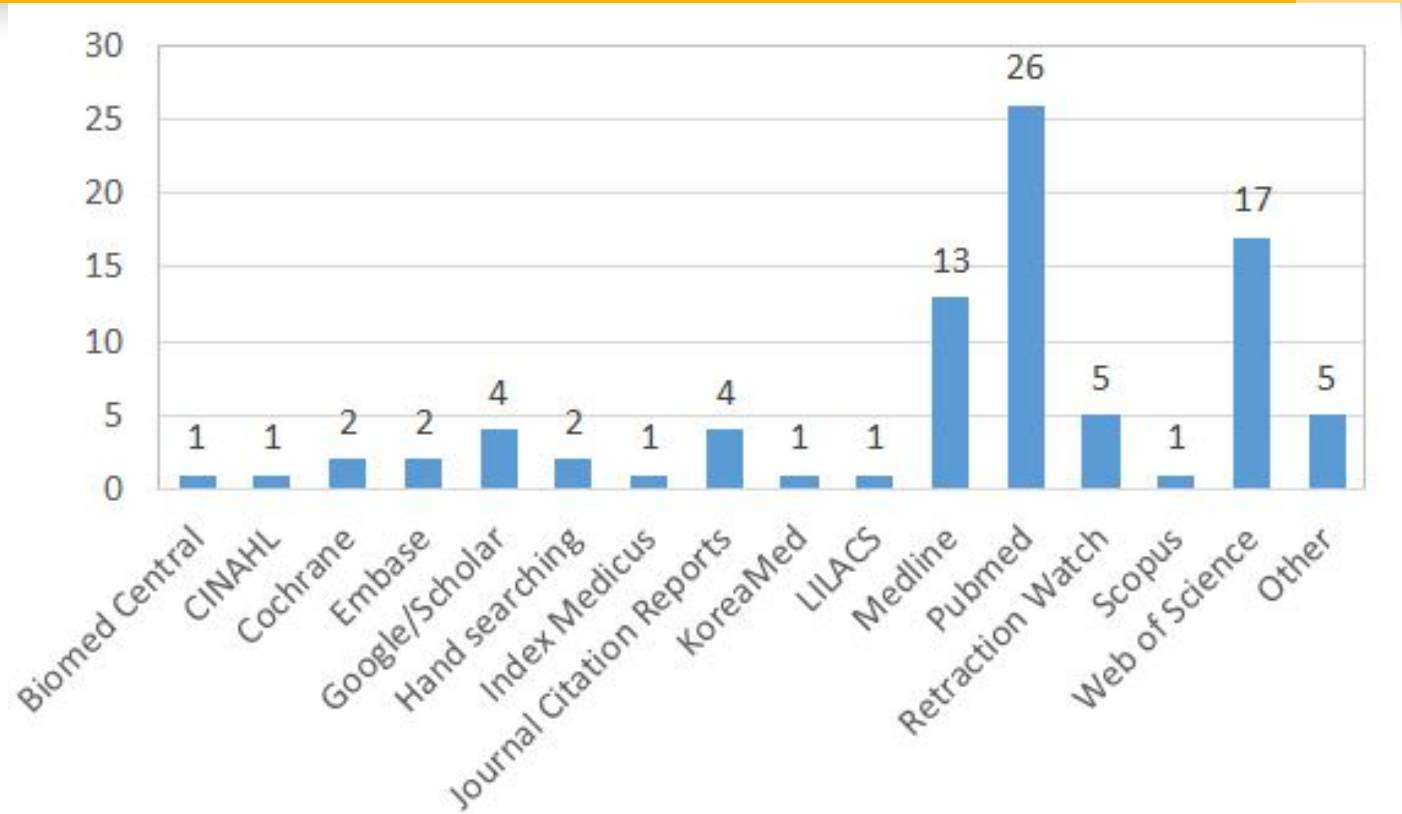
Mistakes

- Honest errors
- Admin errors
- Copyright

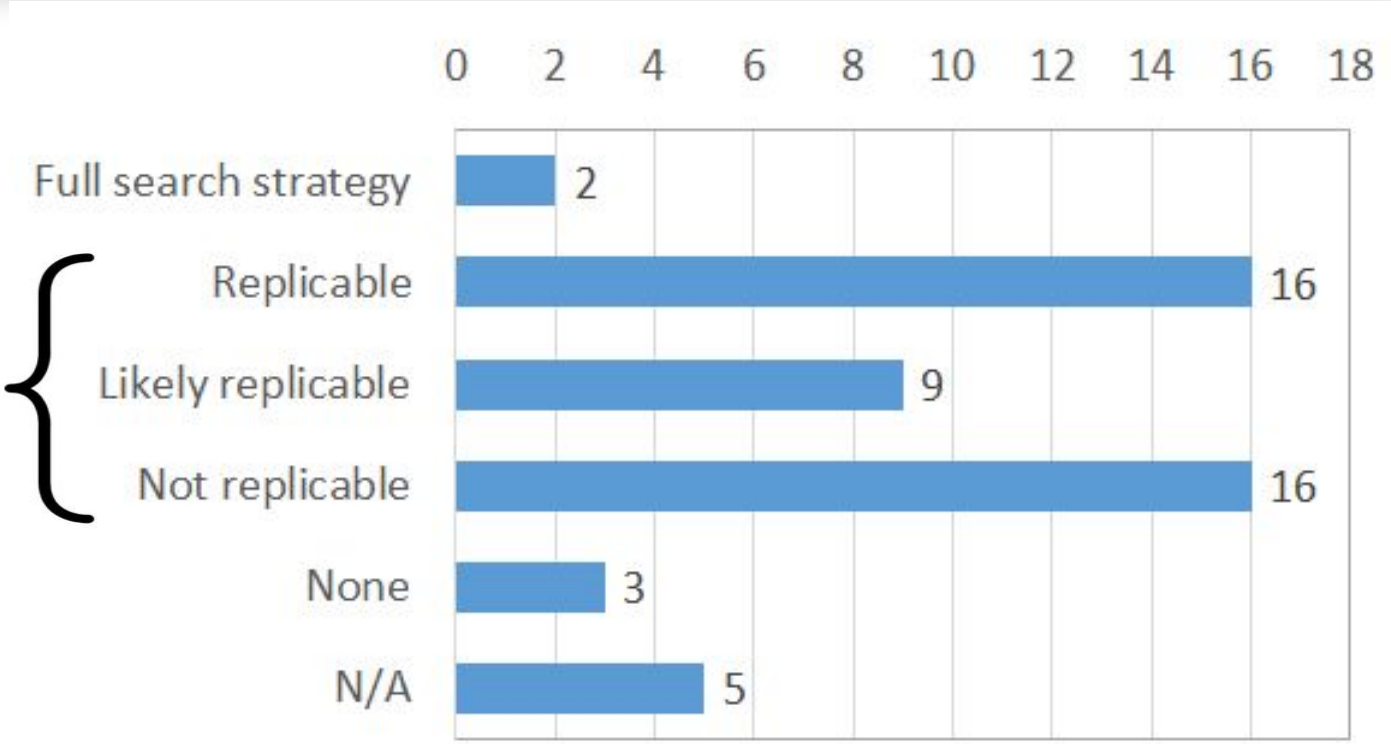
Other

- No reasons
- Unclear

DATABASES & SEARCH ENGINES USED

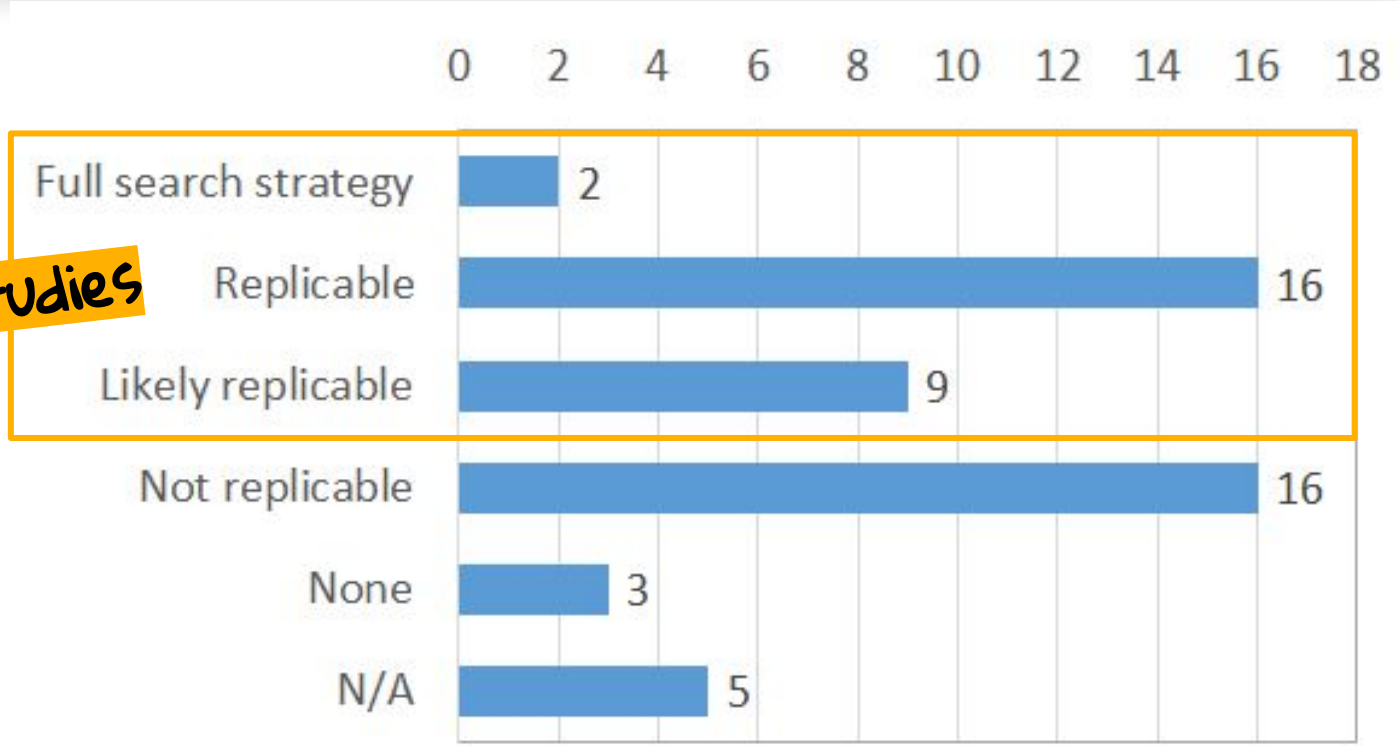


FULL SEARCH STRATEGY & REPLICABILITY



FULL SEARCH STRATEGY & REPLICABILITY

Replicable studies



4. NEXT STEPS

THANKS!

Questions?

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- melissa.helwig@dal.ca

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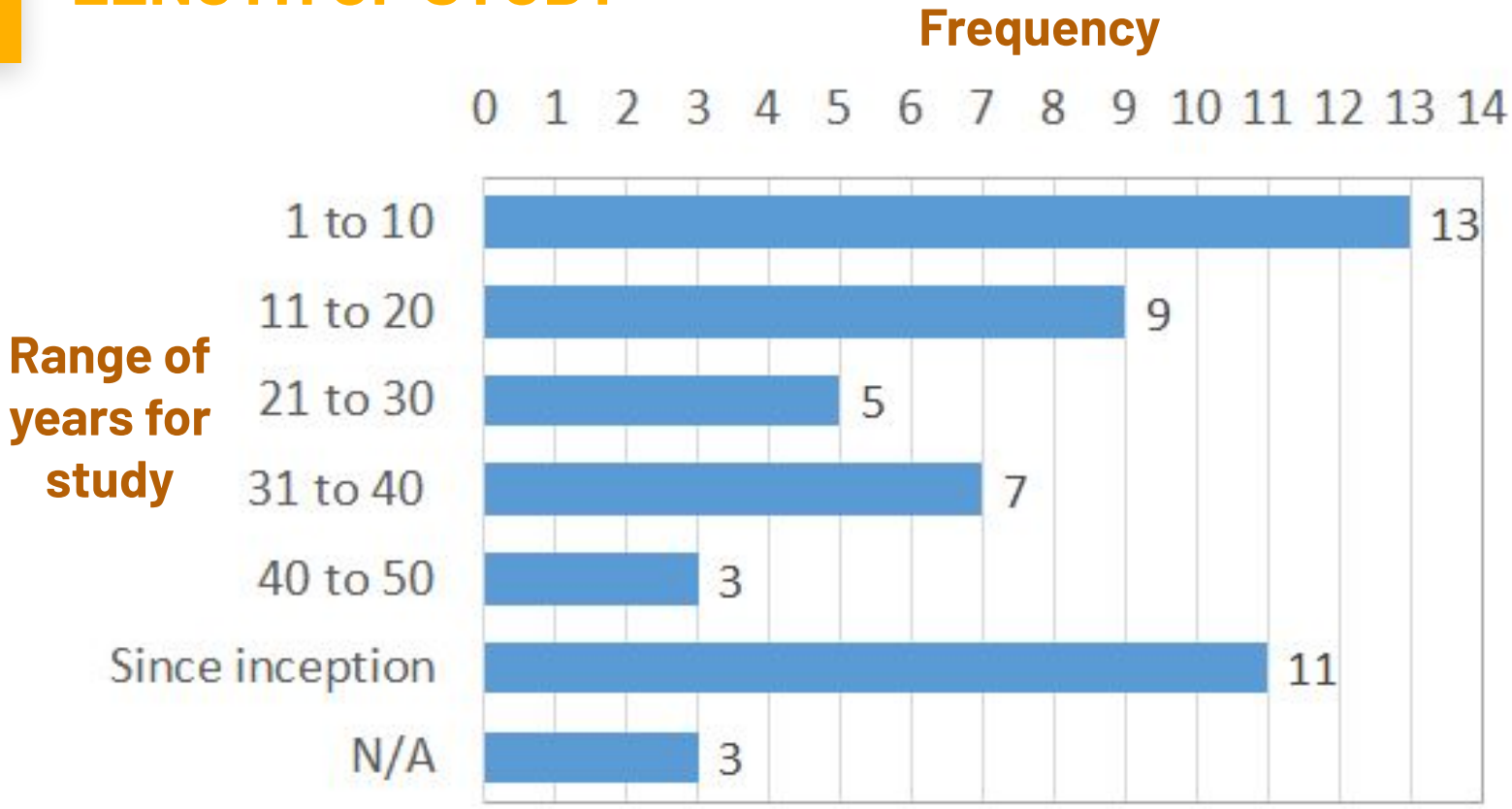
- Photographs by Unsplash

LENGTH OF STUDY