

Retraction in nursing research: a systematic review

Richard Gray^{1, 2}, Lisa McKenna¹, Stav Hillel¹, Amal Alghareeb¹, Martin Jones³, Dan Bressington⁴, Michelle Cleary⁵

1. La Trobe University, Melbourne, Australia
2. North Park Private Hospital, Melbourne, Australia
3. The University of South Australia, Adelaide, Australia
4. Hong Kong Polytechnic University, Hong Kong, La Trobe University, Melbourne
5. School of Health Sciences, University of Tasmania

Corresponding author

Richard Gray

School and Nursing and Midwifery

La Trobe University and Healthscope

Melbourne, Australia, 3086

Phone: +61 481 248 182

Email: r.gray@latrobe.edu.au

ABSTRACT

Background: The number of retracted publications in the scientific literature is increasing exponentially. To date there have been no studies that have examined the number of studies in the nursing literature that have been retracted.

Objective: To determine the number and reason for retraction of publications in web of science listed nursing (science) journals.

Design: A systematic search of nursing science journals

Methods: We will search MEDLINE from 1946 to present for retracted articles published in the 116 Journal Citation Report (2016) listed nursing science journals. The reason for retraction will be classified: i. plagiarism, ii. duplicate publication, iii. fraud, iv. error, v. authorship issues, vi. ethical issues. We will extract the following additional data from each retracted paper: i. number of citations, ii. journal name, iii. impact factor, iv. study design, v. time between publication and retraction (years, months), vi source of funding.

Discussion: This study will provide evidence of the rate of retractions in studies published in nursing (science) journals and enable a comparison with other disciplines/research areas.

BACKGROUND

- The retraction of a published manuscript shows the reported findings to be unsound and should not influence clinical practice
- Authors have reported that the number of published studies that are retracted is increasing rapidly
- Papers are retracted because of research misconduct that includes plagiarism, duplicate publication, and error.
- Retraction of a paper may have negative consequence on the research careers of researchers
- The increase in the number of retracted papers should enhance confidence in scientific findings because checks and balances in the scientific method are working as they should
 - However, retraction of papers may likely undermine public faith in science (and the professions researchers represent)
- Retraction also represents wasted research funding that could have been spent on legitimate research
 - In health research retraction may, ultimately, result in worse public health
- If a paper is retracted participants in the study may have taken unnecessary risks with their health (for example by consenting to take part in a trial with an intervention that has the potential to cause harm)
- Nursing is a maturing discipline where retraction is seemingly rare compared to more established areas of scientific endeavor (including medicine)
- We found no previous studies that have explored the number of retractions in nursing science journals

METHODS

- A systematic review of retracted articles published in the nursing (science) journals listed in the JCR report (Web of Science). Our methodology is based on the study of retraction in cancer research by Bozzo et al (1).

Inclusion criteria

- Retracted studies published in the 116 nursing science journals listed in the 2016 Journal Citation Report (Web of Science).
 - We have selected JCR listed journals as they have an impact factor and are generally regarded as the key journals in the discipline
- Any study design (including systematic reviews)
- Where there were duplicate retractions (e.g. for duplicate publications) we will extract data from the paper that was published first

Survey strategy

- We will search MEDLINE (1946 to present)
- Our search will be restricted to JCR Nursing Journals (Appendix 1)
- We will employ the following keywords¹ and index entries (MeSH) in our search strategy (keywords are italicised; Boolean operations are in uppercase):

*retract** OR *remove** OR *recall** OR *withdraw** OR '*retract**
*publi**'~10 OR '*remove publi**'~10 OR '*recall* publi**'~10
OR '*withdraw* publi**'~10 AND *Retraction of Publication/*

Limits: nursing journals AND retracted publication OR
retraction of publication

- We will also manually search www.retraction-watch.com for relevant studies that met our inclusion criteria
- Two researchers will undertake
 - Title and abstract screening
 - Full text screen
- Any disagreements will be resolved by a third reviewer

¹ Keyword sensitivity: [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms].

Study protocol

- One researcher will undertake data extraction
- Extracted data will be coded and entered into an electronic database.
- The reason for retraction will be classified: i. plagiarism, ii. duplicate publication, iii. fraud, iv. error, v. authorship issues, vi. ethical issues.
- We will use the criteria described by Bozzo et al (2017) to classify how the journal handled the paper i.e. the manuscript was classified as i. intact (if it could be accessed online without alteration), ii. Watermarked (manuscript was opaque), iii. Removed (if retraction notice found and the article was removed from the website)
- We will extract the following additional data for each retracted paper: i. number of citations, ii. journal name, iii. journal impact factor (from web site for current year), iv. study design, v. time between publication and retraction (years, months), vi source of funding.
- We will calculate the total number of papers published in JCR nursing science journals for the past 10 years (2006-2016). This will enable us to determine (and plot) the proportion of articles that were retracted each year.

Analysis

- We will report the flow of manuscripts through the study using a PRISMA flow diagram
- We intend to use basic statistical procedures to describe the data
- The annual number of retractions will be plotted graphically
- We will append a complete list of included studies

Discussion

- Our survey will provide a valuable insight into the rate of retraction in nursing research.

Limitations

- The 2016 JCR lists 116 nursing (science) journals. CINHALL lists around 1,400. Consequently we will only capture retractions from a small minority of nursing journals

References

Study protocol

1. Bozzo A, Bali K, Evaniew N, Ghert M. Retractions in cancer research: a systematic survey. *Res Integr Peer Rev.* 2017;2:5.

Appendix 1: 2016 JCR Nursing (Science) Journals (rank, title, impact factor, citation)

1	INTERNATIONAL JOURNAL OF NURSING STUDIES	3.755	7,186
2	European Journal of Cardiovascular Nursing	2.763	1,311
3	Journal of Family Nursing	2.537	625
4	NURSE EDUCATION TODAY	2.533	5,314
5	BIRTH-ISSUES IN PERINATAL CARE	2.518	2,081
6	JOURNAL OF NURSING SCHOLARSHIP	2.396	2,177
7	NURSING OUTLOOK	2.236	1,338
8	Women and Birth	2.138	758
9	Journal of Cardiovascular Nursing	2.105	1,579
10	EUROPEAN JOURNAL OF CANCER CARE	2.104	2,181
11	Worldviews on Evidence-Based Nursing	2.103	918
12	JOURNAL OF HUMAN LACTATION	2.007	1,665
13	JOURNAL OF ADVANCED NURSING	1.998	14,739
14	MIDWIFERY	1.948	3,032
15	NURSING RESEARCH	1.929	3,469
16	Australian Critical Care	1.907	520
17	Journal of Nursing Management	1.905	2,857
18	AMERICAN JOURNAL OF CRITICAL CARE	1.883	2,218
19	International Journal of Mental Health Nursing	1.869	1,213
20	European Journal of Oncology Nursing	1.826	1,795
21	Rehabilitation Nursing	1.769	639
22	ONCOLOGY NURSING FORUM	1.763	2,855
23	NURSING ETHICS	1.755	1,672
24	RESEARCH IN NURSING & HEALTH	1.693	3,827
25	CANCER NURSING	1.665	2,751
26	AMERICAN JOURNAL OF NURSING	1.663	1,436
27	HEART & LUNG	1.657	2,193
28	Critical Care Nurse	1.608	818
29	Biological Research for Nursing	1.549	847

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- 30 INTERNATIONAL NURSING REVIEW 1.517 1,145
- 31 JOURNAL OF MIDWIFERY & WOMENS HEALTH 1.5 1,487
- 32 Nursing in Critical Care 1.492 669
- 33 Journal of Pediatric Health Care 1.46 983
- 34 Collegian 1.398 525
- 35 JOURNAL OF NURSING ADMINISTRATION 1.386 2,331
- 36 APPLIED NURSING RESEARCH 1.379 1,266
- 37 Nurse Educator 1.372 852
- 38 Journal of Wound Ostomy and Continence Nursing 1.359 1,153
- 39 Intensive and Critical Care Nursing 1.326 1,132
- 40 JANAC-JOURNAL OF THE ASSOCIATION OF NURSES IN AIDS CARE
1.318 938
- 41 Nurse Education in Practice 1.314 1,330
- 42 WESTERN JOURNAL OF NURSING RESEARCH 1.313 1,639
- 43 Clinical Nursing Research 1.311 642
- 44 CIN-COMPUTERS INFORMATICS NURSING 1.301 701
- 45 International Emergency Nursing 1.298 382
- 46 Pain Management Nursing 1.285 957
- 47 Journal of Child Health Care 1.28 559
- 48 Advances in Neonatal Care 1.277 795
- 48 Clinical Simulation in Nursing 1.277 813
- 50 Journal of Tissue Viability 1.263 325
- 51 Journal of Transcultural Nursing 1.262 915
- 52 JOGNN-JOURNAL OF OBSTETRIC GYNECOLOGIC AND NEONATAL
NURSING 2,160
- 53 Nursing Philosophy 1.25 381
- 54 JOURNAL OF NURSING CARE QUALITY 1.224 885
- 55 JOURNAL OF CLINICAL NURSING 1.214 8,447
- 56 ARCHIVES OF PSYCHIATRIC NURSING 1.201 1,028
- 57 Nursing & Health Sciences 1.17 1,203
- 58 Journal of Pediatric Nursing-Nursing Care of Children & Families 1.158 1,543

59 JOURNAL OF PROFESSIONAL NURSING 1.146 1,242
59 Journal of School Nursing 1.146 613
61 Nursing Inquiry 1.143 839
62 GERIATRIC NURSING 1.142 855
63 Journal of Psychiatric and Mental Health Nursing 1.131 2,052
64 PERSPECTIVES IN PSYCHIATRIC CARE 1.13 501
65 Advances in Skin & Wound Care 1.088 1,063
66 NURSING ECONOMICS 1.03 764
67 International Journal of Nursing Practice 1.018 1,406
68 Australian Journal of Rural Health 1 948
68 Journal for Specialists in Pediatric Nursing 1 508
70 Journal of Pediatric Oncology Nursing 0.987 820
71 JOURNAL OF NURSING EDUCATION 0.957 2,434
72 Journal of Nursing Research 0.944 523
73 MCN-The American Journal of Maternal-Child Nursing 0.94 703
74 JOURNAL OF PERINATAL & NEONATAL NURSING 0.937 673
75 Journal of the American Association of Nurse Practitioners 0.931 242
76 International Journal of Nursing Knowledge 0.885 110
77 JOURNAL OF CONTINUING EDUCATION IN NURSING 0.88 846
78 Issues in Mental Health Nursing 0.867 1,680
79 Journal of Trauma Nursing 0.852 272
80 Contemporary Nurse 0.836 1,114
81 Journal of Gerontological Nursing 0.827 1,088
82 Journal of Emergency Nursing 0.795 1,160
83 PUBLIC HEALTH NURSING 0.788 1,106
84 Journal of the American Psychiatric Nurses Association 0.773 373
85 Asian Nursing Research 0.768 290
86 Clinical Nurse Specialist 0.766 508
87 Journal of PeriAnesthesia Nursing 0.764 489
88 AORN JOURNAL 0.753 1,126
89 Holistic Nursing Practice 0.726 513

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- 90 Research in Gerontological Nursing 0.717 234
- 91 JOURNAL OF PSYCHOSOCIAL NURSING AND MENTAL HEALTH SERVICES 0.711 694
- 92 Workplace Health & Safety 0.697 173
- 93 ADVANCES IN NURSING SCIENCE 0.683 1,031
- 94 Journal of Hospice & Palliative Nursing 0.672 392
- 95 Gastroenterology Nursing 0.671 407
- 96 JOURNAL OF NEUROSCIENCE NURSING 0.642 729
- 97 Revista Latino-Americana de Enfermagem 0.634 1,359
- 98 Clinical Journal of Oncology Nursing 0.627 1,003
- 99 Journal of Forensic Nursing 0.603 222
- 100 NURSING CLINICS OF NORTH AMERICA 0.586 524
- 101 Revista da Escola de Enfermagem da USP 0.573 1,002
- 102 Japan Journal of Nursing Science 0.554 172
- 103 Nephrology Nursing Journal 0.535 485
- 104 Journal of Korean Academy of Nursing 0.521 564
- 105 NURSING SCIENCE QUARTERLY 0.49 578
- 106 Acta Paulista de Enfermagem 0.433 558
- 107 Research and Theory for Nursing Practice 0.432 319
- 108 JNP-Journal for Nurse Practitioners 0.412 265
- 109 Journal of Addictions Nursing 0.4 146
- 110 Critical Care Nursing Clinics of North America 0.391 279
- 111 Orthopaedic Nursing 0.375 460
- 112 Australian Journal of Advanced Nursing 0.333 525
- 112 Bariatric Surgical Practice and Patient Care 0.333 42
- 112 Journal of Community Health Nursing 0.333 296
- 115 Assistenza Infermieristica e Ricerca 0.236 79
- 116 Pflege 0.192 104

