

17-Jun-2022

BMJ-2022-071517 entitled "Retracted papers originating from paper mills: a cross-sectional analysis."

Dear Dr. Ruano-Ravina,

Thank you for sending us your paper.

We sent it for external peer review and discussed it at our manuscript committee meeting. We recognise its potential importance and relevance to general medical readers, but we have not yet been able to reach a final decision on it because several important aspects of the work still need clarifying.

We hope very much that you will be willing and able to revise your paper as explained below in the report from the manuscript meeting, so that we will be in a better position to understand your study and decide whether the BMJ is the right journal for it. We are looking forward to reading the revised version and, we hope, reaching a decision.

Please remember that the author list and order were finalised upon initial submission, and reviewers and editors judged the paper in light of this information, particularly regarding any competing interests. If authors are later added to a paper this process is subverted. In that case, we reserve the right to rescind any previous decision or return the paper to the review process. Please also remember that we reserve the right to require formation of an authorship group when there are a large number of authors.

When you return your revised manuscript, please note that The BMJ requires an ORCID iD for corresponding authors of all research articles. If you do not have an ORCID iD, registration is free and takes a matter of seconds.

Many thanks for submitting your paper to The BMJ. Please do not hesitate to get in touch if you have any questions.

Yours sincerely,

Dr Navjoyt Ladher
Research Editor
nladher@bmj.com

*** PLEASE NOTE: This is a two-step process. After clicking on the link, you will be directed to a webpage to confirm. ***

https://mc.manuscriptcentral.com/bmj?URL_MASK=3c9506cb5be847228cbfd7313eff6022

****Report from The BMJ's manuscript committee meeting****

At the manuscript meeting the Editor makes the final decisions on accepting original papers submitted to the journal. Each article is discussed by The BMJ's international team of research editors and one statistician. When making decisions we take into account each paper's originality, scientific merits, and interest to a general readership in comparison with other submitted papers. We take reviewers' reports fully into account too, but the final decision on acceptance or rejection of a paper rests with the editors.

These comments are an attempt to summarise the discussions at the manuscript meeting. They are not an exact transcript.

Members of the committee were:

Elizabeth Loder (chair), Richard Riley (statistical editor), Navjoyt Ladher, Tiago Villanueva, Wim Weber, Di Wang

Sophie Cook (editor in chief BMJ Medicine), Emma Rourke (clinical editor BMJ Medicine), Mark Richards (transfer editor), Mandeep Bajaj (editor in chief BMJ Diabetes Care and Research), Karen Lasser (visitor)

Decision: Put points (revise and resubmit)

Detailed comments from the meeting:

Editors felt your paper covered an important and interesting topic that deserves greater attention and action. We would like to work with you towards publication pending your response to reviews. We think readers will be interested in the broader issues raised by this paper, such as more information about what paper mills are and how to detect a paper mill paper. We would like to consider commissioning related content, such as a linked editorial, to accompany your paper if it is accepted for publication.

We ask that you first please revise your paper to respond to all of the comments by the reviewers. Their reports are available at the end of this letter.

Please also respond to these additional comments by the editorial committee below:

Statistical editor:

* Some statements are about paper-mill papers in total (not just retracted). How are the paper-mill papers identified in general? This is not currently explained.

* How do retraction watch classify retractions? How many might they have missed?

* Especially with covid papers, are retracted papers on the increase anyway (in general)? I this specific to paper-mill papers?

* The last figure should say that the quartiles relate to journal impact factor.

* We are missing absolute numbers of retractions and total papers published per year (often just get told number per 100000 papers)

Research editors:

* Does RW cover all retractions ? Is there a way to check this ?

* How does RW assign 'paper mill' as the reason for retraction ?

* Fig 1 shows "Percentage of paper-mill papers PUBLISHED per year with respect to total publications", should it be "retracted", or "published and then retracted"? Do we know the specific numbers of paper-mill papers published if they were not retracted and captured by Retraction Watch?

* How many of these papers were published in predatory journals?

* From the JCR category in table 1, it seems most of papers were out of the scope of interest for BMJ readers, namely, clinical medicine and public health? Could the authors comment on the kinds of topics covered by paper mill papers and whether the profile of topics has changed over time?

In your response please provide, point by point, your replies to the comments made by the reviewers and the editors, explaining how you have dealt with them in the paper.

Comments from Reviewers

Reviewer: 1

Recommendation:

Comments:

Review of BMJ-2022-071517

This manuscript concerns an interesting and important analysis of a highly relevant and quite alarming topic: the rise of paper mills. It's well written and the study design is clear and adequately executed. A number of issues need to be repaired however and some minor points should be settled.

Major issues

- Please make very clear in the abstract and the main body of the text that retracted paper mill papers may differ substantially from (possibly the large majority of) paper mill papers not retracted.
- Please make very clear in the abstract and the main body of the text whether citations were counted until retraction or until the end of the observation period. Ideally this information should be presented stratified (before versus after retraction).
- You declare that the Retraction Watch database is the gold standard but did you check whether Web of Science or Medline feature retractions not contained in the RW database?
- You seemed to have missed the work by Guillaume Cabanac on 'Tortured Phrases' and his wonderful software package the Problematic Paper Screener (<https://dbrech.irit.fr/pls/apex/f?p=9999:1:::>). Please add this.
- You seem to have missed that software for detecting image manipulation (e.g. FigCheck, Forensically, DARPA, ImageTwin, Proofing and MediaFor) is already available, although not yet functioning impressively. Please add this.
- You present IF quartiles in the main text, tables and figures but fail to explain whether Q1 consists of the lowest or the highest IFs. Please add this information.
- The first author of retracted paper mill papers has a hospital affiliation in 91.5% (82.8+8.7) the included cases. Please comment in the Discussion section whether this may be an artefact due to more intense scrutiny of biomedical publications.

Minor issues

- Why did the time window stop in (December?) 2019? Consider updating for at least 2020 and 2021.
- Line 222 and 212 are not clear. Do you really say here that 51.0% of all retracted paper mill papers you found were published in the second quartile of the JCR category of Biochemistry and Molecular Biology?

Additional Questions:

The BMJ uses compulsory open peer review. Your name and institution will be included with your comments when they are sent to the authors. If the manuscript is accepted, your review, name and institution will be published alongside the article.

If this manuscript is rejected from **The BMJ**, it may be transferred to another BMJ journal along with your reviewer comments. If the article is selected for publication in another BMJ journal, depending on the editorial policy of the journal your review may also be published. You will be contacted for your permission before this happens.

For more information, please see our [peer review terms and conditions](https://www.bmj.com/about-bmj/resources-reviewers).

Please confirm that you understand and consent to the above terms and conditions.
I consent to the publication of this review

Please enter your name: Lex Bouter

Job Title: Professor of Methodology and Integrity

Institution: Amsterdam University Medical Centers

Reimbursement for attending a symposium?: No

A fee for speaking?: No

A fee for organising education?: No

Funds for research?: No

Funds for a member of staff?: No

Fees for consulting?: No

Have you in the past five years been employed by an organisation that may in any way gain or lose financially from the publication of this paper?: No

Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this paper?: No

If you have any competing interests [please declare them here](http://www.bmj.com/about-bmj/resources-authors/forms-policies-and-checklists/declaration-competing-interests): (please see BMJ policy)

BMJ are working with [ORCID](https://orcid.org/) to recognise the importance of the reviewer community. Reviewers are now able to share their activity by connecting their review to their ORCID account to gain recognition for their contributions.

Only the Journal title will be uploaded into the reviewer's ORCID record, along with the date the record was uploaded; there is no identification of the article's title or authors. Records are uploaded once a decision (accept, reject, or revision) has been made on the article.

Would you like to be accredited by [ORCID](https://orcid.org/) for this review?: Yes

Reviewer: 2

Recommendation:

Comments:

Candal-Pedreira and colleagues have presented the results of a comprehensive cross-sectional analysis on paper mill articles published and retracted between 1st Jan 2013 to 27th Sept 2021 (as identified in the Retraction Watch database). They identified 622 retracted articles, all of which included authors from China (majority of which are affiliated with hospitals), and note that 51.9% of these articles are published in journals in Q2 journals within the Biochemistry and Molecular Biology JCR category. The authors have listed the number of retracted paper mill articles by journal title (including OA status) and publishing house, and note that retractions are issued more quickly in Q1 and Q2 journals. In addition, the authors have noted that paper mill articles published in Q4 journals received more citations compared to paper mill articles published in Q1-Q3 journals.

Detection of paper mills is a significant and evolving issue, and affects many different parts of the publishing process – e.g. dishonest authorship practices, fake data (including stock images), plagiarism, unethical citation practices, peer review manipulation, special issue manipulation, fake guest editors, etc. There have been many editorials, news articles and perspectives published on the topic, but this is the first cross-sectional analysis covering retraction of paper mill articles between 2013 – 2021 that I'm aware of.

This is an issue affecting scholarly articles across the industry, and is therefore of relevance to researchers from various disciplines who of course rely on the integrity of published content to inform their own research/education/policy work etc. This cross-sectional analysis addresses retracted paper mill articles within biomedical journals, most of which (to my knowledge) are non-clinical research articles (although can often involve the use of human tissue samples).

As someone who has been actively involved in dealing with paper mills, I'd like to thank the authors for producing this research, as this comprehensive analysis will be of great interest to many in the field. I have the following specific comments for the authors to consider:

- The Retraction Watch database was used to identify paper mill articles which have been retracted due to being paper mills. Can the authors comment on how Retraction Watch identify these as being paper mill articles? Do they rely on the reasons stated within the retraction note (which varies in level of detail across publishers) or do they verify these as being paper mill articles by other means?
- Can the authors specify the date(s) the Retraction Watch database was accessed to source the data? Was this all done on the same day or over several days (and if so, would this have changed the results)?
- I'm surprised that the authors have not cited Elisabeth Bik's post from 2020 titled 'The Tadpole Paper mill' on Science Integrity Digest <https://scienceintegritydigest.com/2020/02/21/the-tadpole-paper-mill/>, as this post contained a list of over 400 potential paper mill articles. This had a big impact on raising awareness about the widespread issue of papermills, noted several red flags which could help identify paper mills, and therefore led to large scale investigations being conducted by several publishers from 2020 onwards. Are the authors familiar with this report, and if so have they considered cross-referencing the articles listed in Bik's post with the data they sourced from RW? This could give an indication of differences/similarities in dealing with paper mills between journals/publishers.
- Regarding the observation about paper mill articles being cited by other articles, can the authors comment on who is citing these- i.e. are these are paper mill articles which have also been identified, or are those other articles which don't seem to be paper mills?
- As we're now in May 2022, have the authors considered updating their search and results? This would be a worthwhile exercise given how quickly this field has been moving and how many new retractions are likely to have been issued since Sept 2021.

Additional Questions:

The BMJ uses compulsory open peer review. Your name and institution will be included with your comments when they are sent to the authors. If the manuscript is accepted, your review, name and institution will be published alongside the article.

If this manuscript is rejected from The BMJ, it may be transferred to another BMJ journal along with your reviewer comments. If the article is selected for publication in another BMJ journal, depending on the editorial policy of the journal your review may also be published. You will be contacted for your permission before this happens.

For more information, please see our peer review terms and conditions.

**Please confirm that you understand and consent to the above terms and conditions.:
I consent to the publication of this review**

Please enter your name: Sabina Alam

Job Title: Director of Publishing Ethics and Integrity

Institution: Taylor and Francis Group

Reimbursement for attending a symposium?: No

A fee for speaking?: No

A fee for organising education?: No

Funds for research?: No

Funds for a member of staff?: No

Fees for consulting?: No

Have you in the past five years been employed by an organisation that may in any way gain or lose financially from the publication of this paper?: No

Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this paper?: No

If you have any competing interests (please see BMJ policy) please declare them here: Some of the journals listed are published by Taylor & Francis Group (my employer) and I have been actively involved in investigating paper mills on these, and other journals within our portfolio. I have also been closely involved with the editorial teams in setting up enhanced processes for detection and resolution. I don't consider this as a competing interest as such, but am declaring this to ensure full transparency.

BMJ are working with ORCID to recognise the importance of the reviewer community. Reviewers are now able to share their activity by connecting their review to their ORCID account to gain recognition for their contributions.

Only the Journal title will be uploaded into the reviewer's ORCID record, along with the date the record was uploaded; there is no identification of the article's title or authors. Records are uploaded once a decision (accept, reject, or revision) has been made on the article.

Would you like to be accredited by ORCID for this review?: Yes