



Guest Editorial

Mediocrity of clinical publications & research

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Abstract

Mediocrity of publications refers to the quality of a publication being average or below average. This is basically due to naïve writers, new graduates, and those seeking publications for appearing in postgraduate examinations or those seeking promotion within academic institutes, without having real interest in publications (Forceful publication or publication under pressure). These writers are forced to write and publish, thus their work is often below average. A low-quality study is one where the findings are uninterpretable. Poor interpretability may also be due to imprecise results, demonstrated by wide confidence intervals around effect estimates, means, or proportions. Errors occur when researchers make mistakes in data analysis or presentation. Types of bias in research are design bias, participant bias, analysis, and data collection bias. According to recent estimates, there are currently over 15,000 predatory journals worldwide. These often publish low-quality data. It has been observed that a significant proportion of contributions to predatory journals come from academicians affiliated with state universities, with government college professionals being the next most common contributors. Although these journals often present themselves as being based in Western countries like the United States or the United Kingdom, many are actually operated from nations in South Asia, the Middle East, and parts of Africa. The consequences for researchers publishing in predatory journals are damage to their reputation and credibility issues and they cause menace. More than half of the journals that appear to be predatory are in the areas of Pharmaceutical Sciences and Health & Medical Science.

Keywords: Predatory journals, Poor writing, Inadequate Literature review, Forced writing, Unindexed journals.

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1. Introduction

Clinical research and publications are the backbone of medical advancements, shaping clinical practices and influencing healthcare policies worldwide. However, an increasing concern in the scientific community is the mediocrity infiltrating clinical publications, characterized by redundant studies, repeated studies, lack of originality, predatory journals, and compromised ethical standards. 85% of all Biomedical research funding is actually wasted, due to inappropriate research questions, faulty study design, flawed execution, irrelevant endpoints, poor reporting, and/or non-publication or execution in unindexed journals.¹⁻²

1.1. A low-quality research paper has many attributes³

Low-quality research often suffers from poor design, weak data collection, and inappropriate analysis, leading to unreliable or invalid findings. It may exhibit ethical lapses, lack of transparency, or failure to address prior literature, resulting in unoriginal or overstated conclusions. Additionally, inadequate reporting and publication in predatory journals further diminish its credibility and impact. (Refer **Figure 1**)

1. **Lack of clear objective:** where the paper may not clearly state its research question or hypothesis, making it difficult to understand the purpose of the study.
2. **Weak methodology:** Poorly designed experiments or studies, including inadequate sample sizes, lack of

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controls, or inappropriate statistical design and analyses, can undermine the reliability of the findings.

3. **Insufficient or inappropriate literature review:** A failure to adequately review existing literature can indicate a lack of understanding of the field and may lead to redundant or irrelevant research.
4. **Inconsistent or unreliable data:** Low-quality papers may present data that is not reproducible, lacks transparency, or is based on flawed data collection methods.
5. **Overgeneralization:** Conclusions drawn from the data may be too broad or not supported by the results, indicating a lack of critical thinking.
6. **Poor writing quality:** Issues with grammar, clarity, and organization can hinder comprehension.
7. **Lack of peer review:** Papers that have not undergone a rigorous peer review process may lack credibility and rigor. Proper peer review by at least 2 experts in appropriate speciality is essential. Peer reviewers must make affirmative comments.
8. **Bias and conflicts of interest:** Research that does not disclose potential conflicts of interest or shows signs of bias can lead to questionable conclusions.
9. **Exclusion of old references:** Since they do not provide the current concept or elaborate what is not updated. Generally, most publishers discard publications prior to 2000 AD, unless they validate some concept.
10. **Similar titles or papers published:** Repetition of similar research is not preferred. Sometimes data is projected as there can be genetic variation in different geographical areas.

Lack of Clear Objective	Weak Methodology	Insufficient or inappropriate Literature Review	Inconsistent or Unreliable Data
Overgeneralization	Poor Writing Quality	Bias and Conflicts of Interest	Lack of Peer Review
	Inclusion of old references	Similar titles or papers published	

Figure 1: Attributes of low-quality research

1.2. A low-quality research publication shows the following^{4,6}

1. **Forced writing:** The paper is written with the only objective of publication which is required for medical and pharmacy postgraduates as per university norms. Many times the research shows flaws or the old project is repeated. Students often hunt old theses and utilize new data to validate the same observation. This is now being curtailed as many e-databases are created by

respective institutes. This is now an essential element to prevent plagiarism.

2. **Proper statistics not considered:** The most important aspect is the sample size (n) required for the study. The number n = 30 frequently used in clinical studies is not always correct. Statistically speaking, the size n depends on the desired precision in the estimation of outcomes. Larger sample sizes allow hypothesis tests to detect smaller effects. If the Study sample size is large enough, its more modest effect can be statistically significant.
3. **Predatory journals:** The act of publishing research in a journal that prioritizes collecting author fees over rigorous peer review and quality control. Predatory journals often present an impressive facade, with websites that look legitimate and an accredited editorial team. They often “phish” for prospects by sending out emails that ask for article submissions or extend invitations to join their editorial team. University Grants Commission published a revised list of nearly 33,000 approved journals’ in which academics can publish their papers. It has been found that even the list contains 84 predatory or bogus journal titles, of which 71 are still active.
4. **Publication in unindexed journal:** A “non-indexed journal” in India refers to a scholarly publication that is not listed in any major international databases like Scopus or Web of Science. These often lack credibility. Therefore, the articles included may not be of graded standard, than those published in Indexed journals. Researchers do not benefit if the publications are in unindexed journals. However, the Non-indexed journals can be a good platform for early-career researchers to gain experience
5. **Editorial board & publisher:** The credentials of members of the editorial board should be impressive, as they impart to the reputé of the journal. A publisher should also be well-known. They should have a battery of journals in various fields. Unimpressive members in the Editorial are drawbacks to even reputed publishers.

Table 1: Attributes of mediocre medical writing⁷⁻⁸

Unclear language and structure of sentences	Lack of a logical flow in the article
Inadequate data presentation and statistical analysis not properly used	Poorly cited references
Misinterpretation of Research	Grammatical errors and typos

There are many articles, published in journals that exuberate mediocrity or are below average.

Table 2: Attributes of the mediocre article sent for peer review⁷⁻¹⁰

The title is ambiguous or not clear or crisp. The right title is necessary for any project.	The introduction does not clearly state the objectives of the study
Methods are not properly described	Results and analysis – sometimes the statistical analysis is not properly applied
The conclusion. of the study is not written properly. There are repetitions of similar sentences. It has been observed that many reviews end abruptly with a short conclusion; however, a lot more can be included in this section	References quoted in the study are old or irrelevant

2. Global Disparities in Clinical Research Quality

1. **Developing vs. developed nations:** While developed countries have stringent regulatory mechanisms, research in developing nations often faces challenges such as inadequate funding, lack of trained reviewers, and weaker institutional oversight, leading to quality discrepancies.
2. **Language and accessibility barriers:** Many high-quality studies from non-English-speaking countries struggle to gain global recognition due to language constraints. Conversely, lower-quality research published in English journals often gets undue visibility.
3. **Commercial influence on research integrity:** Pharmaceutical and medical device companies significantly fund clinical research, sometimes leading to biased study designs and selective reporting of favorable outcomes to promote commercial interests.

3. Conclusion

Medical articles in questionable journals are less impactful than those in non-questionable journals. Medical writers must not only have proper writing skills, but knowledge of the context and terminology of medical topics. At times, they may even need to analyze the logic. Logic is often not seen in poor-quality articles.

Publication fee: Most open-access journals, require publication fees from authors. Publication fee varies depending on the prestige of the journal and the author's reputation. It is important to consider publication metrics of journals rather than fees. . In certain situations, journals do not charge a fee such as Editorials, Comment letters to Editor, Mini or short reviews, commentaries etc. Predatory journals charge an excessive fee, without embarking on quality. It is found that majority of the predatory journals are published in

health & medical sciences (25.48%), and pharmaceutical sciences (24.20%). The majority of the predatory journals are available online (62.42%). It's essential for smart authors to avoid these.

4. Source of Funding

None.

5. Conflict of Interest

None.

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