

## PERSPECTIVE

## RESEARCH ETHICS

# The scam of the research world: the predatory practices

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## Summary

The authors have highlighted the ever-spreading menace of fake research and predatory journalism in the medicine. The lack of incentives and facilities for genuine research, coupled with compulsion to publish a minimum number of papers for promotions, have forced the authors to adopt the short-cut and choose the journals, which are willing to publish for money, without rigorous peer-review. This tendency can only be curtailed by strict adherence to the rules already set by international agencies.

**Key words:** Access to Information; Authorship; Editorial Policies; Fraud; Open Access Publishing / standards; Peer Review; Scientific Misconduct

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## 1. Introduction

When a novice researcher publishes their first paper in a relatively well-known journal, they are surprised by the welcoming e-mails and invites of publishers or journals to publish with them any new research or paper they might have lined up for publication. They are actively approached and appreciated for their research. It is only on a later stage. That they realize that they had been targeted by predatory journals and publishing houses.

The term 'predatory' for money-making journals, without any commitment to quality research, was first used by Geoffrey Beall, a librarian at University of Colorado, Denver, USA.<sup>1</sup> He also developed a list as a guide to identify predatory characteristics, famously called Beall's List.<sup>2</sup>

One can appreciate that the use of the term 'predatory' itself is controversial, as it explains the process outcome but does not differentiate amongst the underlying reasons. There are alternative terms used in literature such as fraudulent; deceptive; pseudo journals etc. However, the 'predatory' term catches attention and makes a strong impression.<sup>3</sup>

Although the apparent use of active promotion and manuscript seeking behavior raises suspicion, but is not unethical per se. It is the lack of standard process to evaluate scientific merits of research material which is questionable and is the hallmark of the predatory Journals. They may falsely claim to have standard

processes but in actuality commit violation of good practices of research publication and ethics. Their main features include: fake editorial board, Lack of or minimal peer review, hidden processing charges, low quality research published/ high acceptance ratio, short submission to acceptance time, poor quality control and no indexation despite the claims.<sup>4</sup>

The main purpose of these predatory journals is money making and is similar to any scam in their modus operandi. In the process, predatory practices damage research by lowering the morale of young researchers, loss of good research in ambiguous journals with low impact factor/ readership, diluting the robust evidence by injecting poorly validated research material, loss of public confidence in research and bringing disrepute to the journals.<sup>4</sup>

Open access journals help in immediate spread of latest research. During COVID-19 pandemic, sharing of information was time critical to contain and manage disease as it rapidly spread across the globe. In such trying times, an open access model of publication was the need of hour. As opposed to traditional subscription journals, open access journals provide readers free access to its content. It helps in gaining wider audience and readership, with minimal barriers to spread of the latest knowledge.

Predatory practices target an open access model for profit making as processing charges are demanded from authors or funding agencies to publish. This brings bad

repute to the open access model which is essentially an important means to lower barriers to spread of scientific knowledge.

### a. The Problem Bulk:

It is a worldwide threat to an extent that this itself has become a ‘worldwide pandemic’. As many as 10,000 predatory journals were identified in 2015.<sup>5</sup> From these predatory journals the predatory conferences are also offshoots and the young researchers unwittingly fall prey to them. Thus, increasing the magnitude of the menace.

With the better and more economical model followed by open access journals and thus the fetched popularity, over the last decade, a handful of profit-driven open-access journals and publishers have surfaced. These claim to provide high acceptance rates and quick processing timeframes (within days). But the caveat is the poor provision of reasonable level of quality control that the scientific community demands. There is little or no peer review and the manuscript is not archived or indexed.<sup>6</sup>

In 2013 Bohannon published his paper in *Science* – ‘Who is Afraid of Peer Review’.<sup>7</sup> He submitted a sting paper in journals listed by Beall’s List or the Directory of Open Access journals (DOAJ) and found that 82% of Beall’s List and 45% of the DOAJ accepted a seriously flawed paper. Since then DOAJ has implemented stringent restrictions and protocols to counter such happenings in future. Due to the development of the digital world interface, more and more masses rely on the information provided by the digital platforms and open access journals. These predatory journals, as they don’t follow the standard protocols of publication, cause non-validated information to reach the people thus flourishing erroneous beliefs.<sup>8</sup>

Most of these fictitious journals are based in the USA (56.4%) followed by India (13.8%) and the UK (6.7%). They target the young naive researchers and promise them rapid processing and publication. These pledge to provide adequate peer review but the publishers lack the basic mandatory knowledge or are deficient of the required infrastructure. The researchers are duped to submit their research to such pseudo journals which has serious consequences both for the researchers as well as the scientific world.<sup>8</sup>

### b. Modus operandi:

Once the predatory journals start to exploit the channel of open access, these start flowing fake or poorly validated data into the mainstream literature causing the robust data sets to appear murky and unclear.<sup>5,9,10</sup>

Although the model and research show that open access model is the main “Modus Operandi” of the predatory journals, yet if we completely debar the publications in this model, then it may lead to potential loss of precious

scientific data which may be prevalent in the target population only. Thus a limited amount of information available for research purposes would be lost. These journals are focused on the aim to purge more and more money from the naive young researchers. Their cost median is defined as 420 USD compared to 2900 USD for authenticated journals. Thus, presents a lucrative package for the naive researchers looking for publication of the research done with precious time and effort.<sup>9</sup>

### c. Spot a “Red Herring” and Avoid the Snare:

There is no easy way to spot a predatory journal, especially if we are comparing it to relatively under-resourced and less advertised journals.<sup>11</sup> These journals are poorly resourced which may lead to low quality publications. However, it is not intentional and these are in the early evolutionary phase of the research world. Excluding them would lead to the loss of data sets pertaining to the population. This would lead to under-representation of the problems of the under-resourced areas of the world as well.

In order to identify predatory journals, there are various free and subscription-based resources available like DOAJ, The Committee on Publication Ethics (COPE), SCImago Journal Rank, National Library of Medicine (NLM) Catalog, Stop Predatory Journals. Subscription based resources are: Cabell’s Whitelist/ Cabells’ Blacklist, Journal Citation Reports (JCR) and Self-assessment checklist: ThinkCheckSubmit.org.

Other helpful tips are as follows:<sup>12</sup>

- Aggressive targeted emails to researchers to obtain manuscripts, even sometimes in areas unrelated to researchers’ interest or expertise.
- These emails may be generic or poorly worded, lacking in detail.
- The contact details may have discrepancies and are poorly accessible.
- The website or journal may mimic or sound like another reputed journal.
- Editorial board is not sound with unverifiable affiliations or unrelated field experts.
- Unrealistic publication timelines, lack of transparency with hidden charges and non-standard unclear processes.
- Published articles are of low quality, with grammatical mistakes, all articles that pay processing fee are published.
- Journal falsely claims to be peer reviewed and are of unverifiable impact factor
- Fraudulent journal metrics such as Journal Impact Factor (JIF), Universal Impact Factor (UIF), Universal Factor (UF), Global Factor (GF) etc.

- Restricted options to withdraw by copyright signing at the time of submission and publishing before agreement.

#### d. Impact of predatory journals and practices:

Naive researchers, by submitting to predatory journals, not only lose confidence to produce further good quality research, but also suffer from bad repute by association. It may make it difficult to secure funding for their future projects and hamper their career growth. Even if researchers realize their folly and attempt to withdraw manuscript after fee submission, it may not be successful and all the good work is lost as it cannot be submitted for publication elsewhere.<sup>13</sup>

An undue emphasis on research for career growth or promotion, in absence of research facilities and time commitments may lead to individual stress and tendency to produce low quality work. Individuals may succumb under pressure to produce and intentionally submit to predatory journals for easy a way out.<sup>14,15</sup> Some regulatory authorities have recognized this phenomenon. Indian Medical Council (IMC) made stringent criteria and decided not to accept open access journal publications for promotion. It has unfairly excluded some good quality open access journals.<sup>16</sup>

It also wastes institutional resources which are diverted away from teaching, training and clinical work. Publication in predatory journals tarnishes their image and adversely impacts the research funding for future projects.

## 2. Conclusion

It is in the interest of good quality research that a wider audience is made aware of the prevalent predatory practices and how to identify them early on. Researchers should take time to ensure the journal credibility before submitting a paper. It is a welcoming step by many mainstream journals and societies to provide a concession to authors from low- and middle-income countries. We should strive for a better research culture and equip ourselves to fight this research world menace.

### 3. Conflict of interest

None declared by the authors.

### 4. Authors contribution

Both authors equally shared their intellectual input in the preparation of this paper.

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