**Title: India’s combat against predatory journals**

**Contact details (mailing address, email id) and affiliation of all authors:**

1. Umesh Wadgave, MDS [**Corresponding author**]

Associate Professor,

Department of Public Health Dentistry,

ESIC Dental College, Kalaburagi, Karnataka

Email - dr.w.umesh@gmail.com

Contact: 8805835602

2. Mahesh R Khairnar, MDS

Assistant Professor,

Department of Public Health Dentistry,

Bharati Vidyapeeth Dental College and Hospital, Sangli, Mahrashtra

Email - kmahesh222@gmail.com

**Abstract**

An attempt to promote India’s research and innovation sector back fired with the menacing surge in Predatory Journals. Researchers who lacked competencies, support and supervision resorted to research misconduct to gain the academic promotions and jobs. Several surveys exposed India’s dominance in predatory publishing and authorship which tainted credibility of Indian researchers and institutions. To tackle the prevalent problem of predatory publishing in India, several national institutions of India made structural changes. This article discusses about the rampant surge of predatory journals and the recent strategies attempted to combat this problem in India.

**Key Words**: ethics, India, Predatory journals, publications, research, scientific misconduct

**Main Article**

A decade back, scientific research in India was lagging and even the pharmacological companies were focusing on generic drugs fabrication rather than discovering new formulations.1 To endorse the research culture in nation, University Grant Commission (UGC) in 2010 made research publications mandatory for tenure promotions of teachers working in universities and colleges.. The implication of this regulation has led to an alarming upsurge in predatory journals in India.2 In 2013, a research uncovered that most of the open access journals which accepted the fatally flawed manuscripts without or little scrutiny were situated in India.3 Subsequently, several surveys confirmed the global dominance of India in both the predatory journal publishers and predatory article authorship.4–7 Another survey in 2016 revealed a disappointing fact that about 30% of the research obtained grants to pay for publication in predatory journals and about 11% of the authors publishing in predatory journals belong to reputed national research institutes of India.8 These facts have unfailingly tarnished the trustworthiness of Indian research, authors and the research institutions.

Several scholars analysed and predicted the following reasons behind the drastic rise in predatory publishing specially in developing nations; changes in research regulations such as mandatory research publications for job and promotions, imbalanced supply-demand between increasing researchers and inadequate publishing venues, inexperience and publication pressure among junior researchers, lack of resources to conduct quality research, culture of valuing quantity of research than the quality, commercialisation of research publication, incentive allowance system for publications in academic institutions, and mandatory criteria for PhD student to have publications to be eligible to submit his/her PhD thesis.4–6,8 One of the possible reason stated behind dominance of predatory journals in India is that English is commonly used in this country.4

Today, India is at a juncture where it has to promote research culture and at the same time keep a check on growing research misconduct. In order to regain the lost reputation, several national institutes of India are making efforts to tackle the malignant growth of predatory publishing. UGC in last two years has shown the strong determination in addressing this issue and came up with following strategies, formulated Consortium for Academic Research and Ethics (CARE) to improve the quality of research in Indian universities, they have also published dynamic UGC-CARE list of quality journal titles which will be updated quarterly, issued public notice on Academic Integrity to all institutes and universities to reject the publications published in predatory journals and recently, in 2019 they made “Research and Publication Ethics” credit courses mandatory for all PhD students.9 The Department of Biotechnology and the Department of Science and Technology celebrate Open Access Day every year during the International Open Access Week by organizing sensitizing lectures, programmes, workshops and taking new open access initiatives.8 The Ministry of Human Resource Development developed National Institutional Ranking Framework (NIRF) in 2015 to rank institutions across the country. The research parameter of NIRF consider only those publications which are published in journals indexed in Web of Science, Scopus, PubMed/Medline and Indian Citation Index.10 All these are reliable databases and possibility of predatory journals under these databases are less.11,12 Medical Council of India (MCI) a statutory body that regulates medical education in India also considers journals indexed in Scopus, PubMed, Medline, Embase / Excerpta Medica, Index Medicus and Index Copernicus and it also excludes E-journals (journal that do not have a print version). However, the problem with MCI regulation is that it considers Index Copernicus which seems to have potentially predatory journals and it excludes E-journals which will lead to elimination of several high quality journals that publishes only electronic format.13 Indian Council of Medical Research (ICMR), has also formulated guidelines “ICMR policy on research integrity and publication ethics” which recommends the appointment of Research Integrity Officer who will ensure that all research publications are free from all forms of research misconduct including publishing in predatory journals.14

We hope that these incessant efforts by various organisations will be able to control menacing rise of predatory journals in India. However, it is unreasonable to expect these measures will completely eradicate the predatory publishing in India. It’s the researchers and the institutions who should take responsibility of publishing their research in the legit journals and restricting jobs/promotions to the faculty with bogus scientific credentials respectively.

**Financial support & Sponsorship:** No funding received

**Conflicts of interest: All authors declare no conflict of interest**

**References**

1. Challenges for science in India. Nature Mater 2009, 8, 361.

2. Raju NV. How does ugc identify predatory journals. *Current Science*.104(11):1461-1462

3. Bohannon J. Who's afraid of peer review? Science. 2013 Oct 4;342(6154):60-5.

4. Demir SB. Predatory journals: Who publishes in them and why? *J Informetr*. 2018;12(4):1296-1311.

5. Shen C, Björk BC. 'Predatory' open access: a longitudinal study of article volumes and market characteristics. BMC Med. 2015 Oct 1;13:230.

6. Xia J, Harmon JL, Connolly KG, et al. Who publishes in ‘predatory’ journals? *J Assoc Inf Sci Technol*. 2015; 66(7), 1406–1417.

7. Moher D, Shamseer L, Cobey KD, Lalu MM, Galipeau J, Avey MT et.al. Stop this waste of people, animals and money. Nature. 2017 Sep 6;549(7670):23-25.

8. Seethapathy GS, Santhosh Kumar JU, Hareesha AS. India’s scientific publication in predatory journals: Need for regulating quality of Indian science and education. *Curr Sci*. 2016; 111(11): 1759-1764.

9. Patwardhan B, Thakur A. UGC-CARE initiative to promote research quality, integrity and publication ethics. *Comment Curr Sci*;2017;117(6):918:19.

10. National Institutional Ranking Framework Methodology for Ranking of Academic Institutions in India Ministry of Human Resource Development. Available from <https://www.nirfindia.org/Parameter>, accessed on January 7, 2020.

11. Savina T, Sterligov I. Potentially Predatory Journals in Scopus: Descriptive Statistics and Country-level Dynamics. Available from <https://figshare.com/articles/Potentially_Predatory_Journals_in_Scopus_Descriptive_Statistics_and_Country-level_Dynamics_NWB_2016_presentation_slides_/4249394>, accessed on January 7, 2020.

12. Demir SB. Scholarly databases under scrutiny. *J Librariansh Inf Sci* 2018; 096100061878415.

13. Aggarwal R, Gogtay N, Kumar R, et al. The revised guidelines of the medical council of India for academic promotions: Need for a rethink. *Indian Journal of Anaesthesia* 2016; 60: 1–5.

14. ICMR Policy on Research Integrity and Publication Ethics 2019. Available from <https://www.icmr.nic.in/sites/default/files/upload_documents/ICMR_policy_ripe.pdf>, accessed on January 7, 2020.