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Predatory publishers gain foothold in Indian academia's upper echelon

By Priyanka Pulla Dec. 16, 2016, 2:45 PM

BENGALURU, INDIA—India is home to a flourishing community of predatory journals: outlets that masquerade as legitimate scientific publications but publish papers with little or no peer review while charging authors hefty fees. Many observers assumed that such bottom feeders were mostly attracting papers of dubious scientific value, if not plagiarized or fraudulent reports, from institutions in academia's outer orbits. But a new analysis has found that many of the weak papers in predatory journals are coming from top-flight Indian research institutions.

The finding has turned the spotlight on an academic culture in India that tends to prize quantity of publications over quality when evaluating researchers. This is an especially big problem in the life sciences, and it will take time to fix, says K. Vijayraghavan, the secretary of India's Department of Biotechnology (DBT) in New Delhi, which funded some of the research that ended up in predatory journals. "Biology, in general, has become ghastly, in that people are chasing the metrics," he says. "If you chase these surrogate markers of success instead of science, we have a problem."

Recent revelations have pointed to a symbiotic relationship in India between questionable publishers and mediocre researchers. In 2013, a Science investigation traced the publishers and editors of scores of predatory journals to India. Delving deeper, Gopalkrishnan Saroja Seethapathy, a graduate student in pharmaceutical chemistry at the University of Oslo, and colleagues randomly chose 3300 papers by Indian first authors from 350 journals flagged as predatory by Jeffrey Beall, a library scientist at the University of Colorado in Denver. In an analysis in the 9 December issue of Current Science, they report that more than half the papers were by authors from government-run and private colleges: hotbeds of mediocre research. But about 11% of papers, they found, were from India's premier government research bodies, including dozens of publications from institutions belonging to the Indian Council of Agricultural Research (ICAR), the Council of Scientific and Industrial Research, and the Indian Institutes of Technology.

"Funding agencies have to be careful about where papers are published," says Subhash Chandra Lakhotia, a cytogeneticist at Banaras Hindu University in Varanasi, which is a source of some papers in predatory journals. "They have to take their jobs seriously and find time to read papers, instead of simply going by the number of papers published."

Some say that the root of the problem is, paradoxically, recent government attempts to improve Indian research output. India's University Grants Commission (UGC), a body charged with setting educational standards, in 2010 made it mandatory for all faculty in higher educational institutions to publish papers in order to be evaluated favorably. Pushkar, the director of the International Centre Goa who goes by one name, says this move pushed teaching faculty with no expertise in research towards predatory journals. "The research component in the performance metrics for faculty in teaching-focused institutions is the reason why predatory journals attract so many submissions," he told Science. When concerns were raised about the proliferation of papers published in poor-quality journals, UGC announced that it would change its performance metrics and compile a list of peer-reviewed journals in which researchers would need to publish.

That's not the best solution, Vijayraghavan argues. "The fundamental problem is an ecosystem that values where you publish and how many papers you publish rather than what you publish. That needs to be changed," he says. To bring about change, DBT launched an open-access policy in 2014, which requires all published papers to be uploaded to a central repository, so that they can be evaluated according to their merit. The department also plans to launch a preprint repository, along the lines of arXiv, to encourage sharing of research prior to publication. The idea is to galvanize a culture of evaluating research by reading publications rather than focusing on numbers of papers published or impact factors. "This will pull the carpet from under the feet of predatory publishers," Vijayraghavan says.

Some scientists feel that the predatory publishing scourge is overblown. ICAR Director General Trilochan Mohapatra argues that many publications classified as predatory could merely be little-known journals that charge publication fees. "There are many flaws with the Current Science paper," he says. "We will internally analyze this issue, see if a real problem exists at ICAR, and come out with our own study."

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Priyanka Pulla



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