
Prestigious Journals, Predatory Publishers and the Tall Poppy Syndrome in Medicine: A Brief Overview

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ABSTRACT

Fringe medicine (euphemistically called alternative), their articles (sometimes called throw aways) and products (supplements) have peacefully but uncomfortably coexisted with traditional medicine. The advent of the internet and the spread of misinformation have made traditional medicine evaluate the interpretation of all medical information. Traditional or prestigious journals, not without their own failings, are now in competition with the internet which includes open access e-journals, which have given rise to predatory publishers, as well as medical misinformation.

A case report illustrates how misinformation in *Lancet* (prestigious journal) led to the anti-vaccination movement. Two papers within a year refuted the findings and *Lancet* eventually retracted the article. The lead author lost his medical license and became a victim of the Tall Poppy Syndrome (TPS) for his egregious actions. Authors, editors and readers must remain vigilant for misinformation in the age of literal and figurative virality.

Keywords: Prestigious journals; open access journals; predatory publishers; tall poppy syndrome; medical misinformation.

1. INTRODUCTION

Prestigious journals, print papers with a subscription fee and recognized peer review process, are facing pressures from the internet similar to all print forms. Veracity is paramount since an error may lead to injury or even death. Misinformation on the internet with its ability to go viral may be a fate worse than death. Open access e-journals are multiplying so rapidly it is difficult for the physician to stay current with all the new information. E-journals have given rise to predatory publishers, a term I do not necessarily agree with, making the task of sifting through the chaff more difficult. The internet has unleashed insurmountable information as well as misinformation leaving the physician with an overwhelming task of staying current as well as establishing fact from fiction. All this competition for the physicians' attention may result in the Tall Poppy Syndrome (TPS) of the author, the editor and the journal itself [1-7].

2. DISCUSSION

In 1998, a report by Wakefield et al in the prestigious *Lancet* (ranked #4 in google scholar publications) intimated that the measles, mumps, and rubella (MMR) vaccination may predispose to behavioral regression and pervasive developmental disorder (autism) in children [8]. The paper was really a series of 12 case reports put forward by its 13 authors but lacked controlled design. The observational study's conclusion was based on supposition. However, this small paper's collection of case reports with no scientific design gained comprehensive coverage.

Within a year *Lancet* published two papers invalidating the study but the damage had been done [9,10]; the anti-vaccination movement had already been launched. Future papers confirmed the negative association between MMR and autism. In 2004, *Lancet* would retract the interpretation of the

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original data stating that no casual link was established between the two because the data was insufficient [11]. The controversy continued in the medical community as well as the public. In 2010, Lancet completely retracted the article [12]. The latest volley is a study from epidemiologists in Sweden involving more than half a million people unequivocally refuting any link between MMR and autism [13].

In 1963, measles annually infected 3 to 4 million people in the U.S. It is estimated that 400 to 500 died annually. The measles vaccination was introduced that year with mumps (1969) and rubella(1967) added to MMR in 1971. By 2000, measles was eliminated in the U.S. The U.S. is nearly 95% vaccinated (95% is necessary to prevent outbreaks) but pockets of the unvaccinated have now placed certain communities at risk.

By the end of May 2019, there were 940 measles cases in 26 states. This number is higher than the total for the entire year of 2018 and will most likely surpass the 963 cases in 1994 becoming the worst year for measles in 25 years. The disease most commonly occurs in groups whose vaccination rates are low, travel overseas, become exposed and bring the disease back. In Europe, the inoculation rate peaked at 92%; after the Wakefield article, the rate dropped to 80%. In 2018, the European measles rate hit a 20 year high.

The outbreaks have occurred because a sole paper in a prestigious journal (which has never been confirmed) and the internet. This led to the worldwide anti-vaccination movement. Some parents stopped vaccinating their children out of fear of inducing autism. In the internet world, provocateurs receive more airtime and credibility than the scientific-experts. Their missives may be harmless banter but they infect, literally and figuratively, many in our populations. A YouTube star, who promotes conspiracy theories, has 20 million subscribers, and some of his videos have had 30 million views. His offerings include historical rewrites of the lunar landing and the 9/11/2001 tragedy.

The prestigious journal charges a subscriber fee for its articles and allows non-subscribers access only to the abstract. If the non-subscriber's interest is tweaked, an individual article may be purchased for a fee which is not exactly nominal. This model is very restrictive and cumbersome for large review articles, individuals who do not have access to medical libraries and many third world countries. The business model and print itself seem imperfect and ready for disruption.

The internet has given rise to open access journals which are in direct competition with the prestigious journals. Some wonder whether e-journals, preprint archives, blogs and wikis will make prestigious journals with their peer review irrelevant. These journals are free worldwide although an author may be required to pay a publication fee. They also have faster turn around times and less restrictions on tables, graphs, radiographs and illustrations which may be animated to support conclusions. Authors of new research have access to the entire paper.

In 2009, Jeffrey Beall, MSc in library science, was the Scholarly Communications librarian at the University of Colorado Denver and began to receive spam emails from previously unknown publishers. In 2010, he coined the term predatory publisher (a term I do not agree with) and published his first blog which was widely disregarded. In 2011, Beall defined the predatory publisher "as those that unprofessionally abuse the author- pays publishing model for their own profit" [14]. He maintains these publishers care more about the authors (payor) than the readers which may lead to fake news.

His second list of abusers was better received. In 2012, he opened a new blog, <http://scholarlyoa.com>, with contributions and suggestions from others which became very popular and was updated a couple of times annually. In 2014, a new web site, operated by a group of librarians worldwide in contradistinction to Beall, advocated world freedom of expression and intellect with opposition to censorship. It was highly critical of Beall's blog on open access publishing. In January 2017, Beall's blog closed.

This rivalry for readership has led to TPS among other things. TPS is a metaphor observing a poppy field and desiring to cut down the tall poppy so that all are equal in height. There is competition between prestigious journals and e-journals which may lead to one journal cutting the other down by

acceptable behavior such as disruption (justification). The predatory journals want to cut down both prestigious and e-journals but by unacceptable behavior (egregious) such as an inappropriate business model. Wakefield was cut down by his egregious behavior - acting dishonestly and irresponsibly in his research and against his patients. On January 2010, Wakefield was removed from the U.K. medical register ending his career as a physician. MMR vaccination is being cut down by anti-vaccination movement and fake news on the internet. Beall has been cut down by threats and potential lawsuits which resulted in closing his web site.

While the above plays out on the world stage, the individual physician has the difficult task of sorting through an increasing number of journals and internet information not only merely to stay current but to sort out misinformation. Prestigious journals may think they are infallible but that is not true. The e-journal, perhaps the model of the future, has also given rise to the predatory journal which has tainted the whole group.

The subject of vaccinations and the anti-vaccination movement stimulated this article. This article demonstrates the necessity of both individual and herd or community protection against a disease. Herd immunity affords some protection for people who cannot receive vaccinations and even those who have been immunized. Non immunized individuals put the entire community at risk for an outbreak when rates drop below the threshold of herd immunity. Science and scientific reporting should set the vaccine policies, not fake news and movements.

3. CONCLUSION

A hybrid scientific journal may come out of all this: an e-journal with great peer review, as much data as required necessary to verify the conclusion, an automated reference linking to include google scholar, and comments at the end of the paper providing immediate feel back. Regardless of the future format, the reader must be able to interpret trustworthy knowledge from the research. Ranking schemes are fine but do not permit the immediacy which is required as well. Quoting or blind belief in an abstract of a prestigious journal without reading the full paper is as wrong as it is in accepting science in a predatory journal. Editors and individual physicians must "trust but verify."

COMPETING INTERESTS

Author has declared that no competing interests exist.

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