

EDITORIAL

RESEARCH ARTICLE RETRACTION: CAUSES, CONSEQUENCES AND PREVENTIVE MEASURES

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Evil of publishing fraudulent medical research papers has become prevalent. Last year (2023) the annual number of papers retracted by research journals topped 10,000 for the first time. Retractions are typically made in cases of scientific misconduct, data fabrication or falsification, plagiarism, or other serious ethical violations. Retractions are important for maintaining the integrity and credibility of scientific literature, as they help to correct the scientific record and prevent the dissemination of inaccurate or misleading information. The publication of sham science papers has its roots in some countries where young doctors and scientists seeking promotion were required to have published scientific papers. Research article writing should not be mandatory for medical teachers working at the undergraduate level. Allowing medical teachers to pursue research on a voluntary or optional basis will contribute to the advancement of medical knowledge without compromising on quality of research and it will ultimately result in a smaller number of retractions.

Keywords: Article retraction, fraudulent publication, misconduct, integrity of scientific papers

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Evil seems to be prevalent everywhere in the modern world; medical publication is no exception. A global surge in fraudulent research papers has become an international scandal. Last year the annual number of papers retracted by research journals topped 10,000 for the first time. Most analysts believe the figure is only the tip of an iceberg of scientific fraud. The startling rise in the publication of sham science papers has its roots in some countries where young doctors and scientists seeking promotion were required to have published scientific papers. A study in *Nature* revealed that in 2013 there were just over 1,000 retractions. In 2022, the figure topped 4,000 before jumping to more than 10,000 last year. The harm done by publishing poor or fabricated research is demonstrated by the anti-parasite drug ivermectin. Early laboratory studies indicated it could be used to treat Covid-19 and it was hailed as a miracle drug. However, it was later found that these studies showed clear evidence of fraud, and medical authorities have refused to support it as a treatment for Covid-19.¹

There have been cases of scientific paper retractions noted in Pakistan also.² Scientific paper retraction is the process of officially withdrawing a published research article from a scientific journal due to errors, misconduct, or ethical concerns. Retractions may be initiated by the authors themselves, by the journal editor, or by a third party who brings concerns about the validity or integrity of the research to the attention of the journal. Retractions are typically made in cases of scientific misconduct, data fabrication or falsification, plagiarism, or other serious ethical violations. The Committee on Publication Ethics (COPE) provides guidelines to journals on handling retractions and other ethical issues in publishing.

Retractions are accompanied by a statement explaining reasons for retraction. Retractions are important for maintaining the integrity and credibility of scientific literature, as they help to correct the scientific record and prevent the dissemination of inaccurate or misleading information.^{3,4}

One of the main reasons for article retractions is misconduct in research, such as fabrication, falsification, or plagiarism. These actions undermine the credibility and validity of the research, and thus, warrant the retraction of the article. Ethical concerns also play a significant role in article retractions. For instance, if a study involves human or animal subjects and it is discovered that there was a violation of ethical guidelines in the research process, the journal may retract the article to protect the welfare of the subjects involved. Errors in data or research methodology can also lead to article retractions. If significant flaws or inaccuracies are found in the study design, data collection, data analysis, or interpretation of results, the journal may retract the article to prevent the spread of misinformation. Similarly, duplicate publication, where the same study is published in multiple journals without proper acknowledgement, can lead to retractions as it violates the principles of originality and copyrights. Undisclosed conflicts of interest can also result in retractions. If it is discovered that the authors had financial, personal, or other conflicts that could have influenced the outcomes of the study or conclusions, the journal may retract the article to maintain transparency and ensure the readers are aware of any potential biases. Misconduct accounts for the majority of retracted scientific publications.^{5,6}

In Pakistan there was once a ‘number game’ only. One was asked, “How many published research

papers do you have?" Now the publication of papers is not sufficient as another aspect has been added to this number game which may be called as 'standard game'. It is now asked, "How many of your research papers are published in impact factor journals?" Unfortunately, this question is being implemented as a policy of the PMDC abruptly, rather retrospectively, which is not fair. This policy should have been implemented prospectively and earlier published research papers published in the PMDC recognized journals should be considered as such for promotion. In Pakistan, demanding impactful research without providing necessary resources and funding is ridiculous!

Research article writing should not be mandatory for medical teachers working at the undergraduate level for several reasons. Firstly, medical teachers are primarily responsible for education and training of future healthcare professionals. Their main focus should be on teaching students the necessary knowledge and skills to become competent physicians. Secondly, not all medical teachers have an aptitude or a strong background in research as research is like poetry; as all cannot become poets, same is true that all cannot become researchers, and all may not have the necessary resources to conduct high-quality research! Thirdly, the pressure to publish research articles may create unnecessary stress and burnout among medical teachers

which results in publishing subpar research papers. Instead of making research article writing mandatory, institutions should provide support and resources for those who are interested in conducting research. Allowing medical teachers to pursue research on a voluntary basis will contribute to the advancement of medical knowledge without compromising on quality of research. It will ultimately result in a smaller number of retractions. Pakistan Journal of Physiology, like most of the scientific journals, has its retraction policy available from <https://www.pjp.pps.org.pk/index.php/PJP/erratum>.

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