



GROWING TREND OF SCIENTIFIC PAPER RETRACTION: UNFORESEEN IMPLICATIONS

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Accepting one's mistake and apologizing is a great virtue, no doubt, but does this hold equally true in scientific research?

Recent years have witnessed innumerable scientific paper retractions. As per COPE guidelines, journal editors should consider scientific paper retractions if they have clear evidence that the findings are unreliable, plagiarized, unethical or redundant.¹ Cleansing of medical literature is the main motive behind such retractions. But does retracting scientific information which has been repeatedly accessed and cited prior to its retraction (and even post retraction at times!) serve this purpose?

A look at the top 10 most highly cited retracted papers² depicts that on average such papers have remained in medical literature database for 8 years (range, 2-17 years) and have been cited 580 times on an average prior to their retraction. Another alarming fact is that even after retraction, these have still been cited 306 times on an average.

In present era of evidence based medicine, all current clinical management decisions and future research protocols are based on the vast medical literature available at that point in time. No doubt, science is an ever evolving branch and the medical literature is regularly updated based on major scientific advancements. But retracting scientific information many years down the line can have serious implications.

In the intervening years in which such retracted scientific information is considered authentic and is a part of the medical database, it would have guided innumerable medical professionals around the globe in their patient management decisions in day to day practice. Many research inclined individuals would have taken such information as foundation for future research and would be either continuing or completed their research by the time such scientific information

gets retracted. What if they had discussed the later retracted paper at length in their original article and compared it with outcome of their research? Should they too retract their paper, if already published, and submit for publication after updating information on retracted bibliography? And what if after an year or so, the same paper gets republished with a retraction of retraction notice due to wrong initial retraction by a journal?³

Nowadays, there is increasing trend towards conducting meta-analysis by researchers and physicians consider conclusions drawn from such meta-analysis regularly in clinical management decisions. If such scientific papers which are retracted later form part of meta-analysis, what shall be the authenticity of these meta-analyses? And who takes responsibility of wrong treatment decision taken by doctors globally based on such fraudulent scientific information? And the ultimate sufferer, the patient, whom can he hold guilty in a lawsuit for being subjected to wrong management based on scientific information which later gets retracted for being fraudulent?

With a recent flurry of retraction of scientific papers, thought which creeps in one's mind is that who is responsible for the contamination of medical literature with entry of unethical and fraudulent scientific information: the author(s), author's institution, peer reviewers or/and journal editors? Mandatory research policies as followed in various countries as criteria for promotion could be a contributory factor.⁴ A thorough introspection is the need of the hour. This increasing trend of scientific paper retraction can be tackled by nipping it in the bud by

prevention of entry of such unethical and fraudulent scientific information in the medical database in the first place. Prevention is always better than cure! And when it comes to medical literature, keeping it unblemished by sensitizing medical professionals with research ethics is a must to prevent the wavering of trust of medical professionals in it.

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