

EDITORIAL**PAPER MILLS IN MEDICAL RESEARCH: A SERIOUS ETHICAL ISSUE**

Ethical research is an integral part of institutional and professional integrity, both for scientist her/himself as well as the associated institution.¹ Maintaining ethics and truthfulness in research manuscripts not only adds valuable information in global body of knowledge but also encourages and inspires other researchers as well.² With passage of time, these practices have become complex in nature and hard to identify. One of such research dereliction is termed as “Paper Mills”.³

Paper Mills (PMs) are defined as organizations that provide paid services on demand that include fabrication in data, involving ghostwriters for write ups, falsification of data or images, reporting unauthentic results and predatory publications.⁴ The culprits involved in Paper Mills include researchers themselves, authors, fake reviewers and publishers. These PMs are serious threat to academia and research sectors of institutes as they may temporarily change metrics of the involved journals and increase the h-index or i10 index of the authors.⁵ However, upon identification, such people may malign the

name of their institutes, any unaware journals that may have published their work and jolt the integrity of overall research system.⁶

The identification of such papers is difficult generally, as they are within institutes and given the overwhelming number of papers being published these days. However, some little indications may give some hints such as repeating shapes and patterns in the uploaded images, unusually favorable results, superficial and incoherent explanations or justifications, repeating statements throughout the manuscripts and vague methodology etc.⁷

In order to avoid PMs, the process of scrutiny by editors of journals need to be upgraded according to the need of time.⁴ The authors should be searched for their previous work to establish his credibility. The author should be asked to submit raw data. The papers should be peer reviewed by a good team or the journal can take screening services from a third party. The authors and organizations should also show professional morality and work as a team to produce and maintain quality researches.⁷

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