

# ISRG JOURNAL OF CLINICAL MEDICINE AND MEDICAL RESEARCH [ISRGJCMR]



OPEN ACCESS



ISRG PUBLISHERS

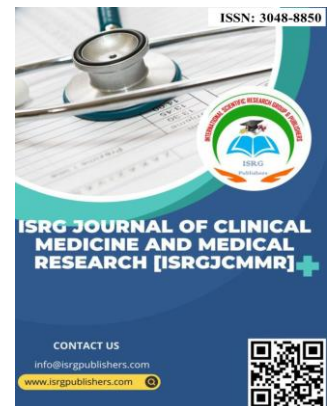
Abbreviated Key Title: ISRG J Clinic.Medici.Medica.Res.

ISSN: 3048-8850 (Online)

Journal homepage: <https://isrgpublishers.com/cmmr/>

Volume – III, Issue - II (March-April) 2026

Frequency: Bimonthly



## RESEARCH MISCONDUCT IN MEDICAL IMAGING: HOW COMMON IS IT?- EDITORIAL

Muhammad Ahmad Raza

Head of Department, Department of Radiography & imaging Technology, Hussain College of Health Sciences,  
Lahore, Pakistan. ORCID ID: 0009-0002-2932-8424

| Received: 04.04.2026 | Accepted: 08.04.2026 | Published: 16.04.2026

*\*Corresponding author: Muhammad Ahmad Raza*

*Head of Department, Department of Radiography & imaging Technology, Hussain College of Health Sciences, Lahore, Pakistan. ORCID ID: 0009-0002-2932-8424 Email: dr.ahmad663@gmail.com*

### Introduction

Medical imaging research informs clinical recommendations, supports evidence-based practice, and influences patient treatment. Therefore, maintaining the integrity of this study is not only an academic ideal but also a therapeutic requirement [1]. However, medical imaging research is not exempt from scientific misconduct, such as fabrication, falsification, plagiarism, duplicate publishing, and image modification, just like all other areas of biomedical science. It is crucial to comprehend the frequency and types of misbehavior in radiology in order to protect the legitimacy and usefulness of imaging technology [2].

### How common is Misconduct in Medical Imaging research?

The majority of data come from survey research, which is impacted by response bias and self-reporting, making it difficult to determine an exact prevalence. However, a number of research provide significant insights: About 6% of corresponding authors from 12 general radiology journals who participated in a 2022 poll acknowledged that they had engaged in scientific fraud over the

previous five years, and 27–28% said they had seen or suspected fraud among colleagues[3]. According to a 2025 poll on medical image fraud, 11.9% of participants acknowledged fabricating imaging data, and 37.1% had seen others engage in similar behavior. Cherry-picking non-representative photographs to support conclusions was the most common misbehavior. These patterns seem to be mirrored in other specialized areas. For instance, cardiovascular imaging researchers reported that around 3–4% of respondents acknowledged to fraud, while about 24% witnessed or suspected wrongdoing. The majority of respondents also indicated publication bias [4].

### Retractions as a Window into Misconduct

Retraction statistics provide another perspective on integrity. Examining the literature on medical imaging reveals that: In a retrospective analysis of retracted imaging articles, plagiarism and data problems accounted for more than half (~55%) of the retracted papers. Retractions have been more frequent over time, indicating either more transparency and detection or perhaps an increase in

the amount of tainted research [5-6]. Taken together, these results imply that although the amount of overtly stated fraud may be small (single digits), a far higher percentage of academics observe or suspect unethical behavior, and signs like publication bias and image fabrication are not uncommon.

In imaging research, common types of research misconduct include: Selective presentation of results and false reporting, publishing of the same data twice or more than once, Authorship and plagiarism concerns, such as guest or honorary authorship, image manipulation, including incorrect improvements, duplications, and cherry-picking photos and Publication bias is the practice of submitting or accepting only favorable or "publishable" findings [7].

## Drivers of Misconduct

Research misconduct has many different and intricate reasons. Studies and surveys that have been published indicate: Pressure to publish, obtain funding, or further academic careers are examples of perverse incentives, Academic environments are subject to competitiveness and publication pressure. Junior researchers and those working in settings with inadequate research ethical infrastructure receive less supervision and mentoring [8].

## Implications for the Field

Even modest levels of misconduct can have disproportionate consequences: Erosion of trust in scientific literature can slow clinical adoption of genuinely beneficial imaging advances. Misleading data can propagate through meta-analyses and guideline recommendations. Patient care can be indirectly affected when clinicians rely on compromised evidence [9].

## Strategies for Improvement

Addressing misconduct requires a multilevel approach: Stronger ethics training for researchers at all career stages. Robust peer review and editorial policies, including image screening tools and data transparency requirements. Open science practices, including pre-registration and data sharing as well as Cultural change to reward quality over quantity of publications [10].

## References

1. Kwee TC, Almaghrabi MT, Kwee RM. Which factors are associated with fraud in medical imaging research?. *European Journal of Radiology*. 2023 Jul 1;164:110884.
2. Kwee RM, Pavel AM, Kwee TC. Image fraud in nuclear medicine research. *European Journal of Nuclear Medicine and Molecular Imaging*. 2025 Aug 16:1-6.
3. Kwee RM, Almaghrabi MT, Kwee TC. Scientific integrity and fraud in radiology research. *European Journal of Radiology*. 2022 Nov 1;156:110553.
4. Bauchner H, Steinbrook R, Redberg RF. Research Misconduct and Medical Journals. *Journal of Law, Medicine & Ethics*. 2025 Mar;53(1):35-40.
5. Caron MM, Barnes M, Bierer BE. Proposed Increases in Government Authority Over Research Misconduct Proceedings. *JAMA*. 2024 Jul 16;332(3):193-4.
6. Talha M, un nisa Irshad N. Artificial Intelligence Ecosystems Facilitating Image Abuse in Radiology Data: Risks to Privacy and Clinical Research Integrity. *Journal of the American College of Radiology*. 2025.
7. Saïd BA, Ali W, Amine K, Redouane KM, Sahu AK. Fdct-based watermarking for robust and imperceptible medical image protection. *Intelligence-Based Medicine*. 2025 Jul 16:100280.
8. Burti S, Zotti A, Banzato T. Role of AI in diagnostic imaging error reduction. *Frontiers in Veterinary Science*. 2024 Aug 30;11:1437284.
9. Deheyab AO, Alwan MH, Rezzaqe IK, Mahmood OA, Hammadi YI, Kareem AN, Ibrahim M. An overview of challenges in medical image processing. In *Proceedings of the 6th international conference on future networks & distributed systems 2022 Dec 15* (pp. 511-516).
10. Meng B, Yuan X, Zhang Q, Lam CT, Huang G. Encryption-then-embedding-based hybrid data hiding scheme for medical images. *Journal of King Saud University-Computer and Information Sciences*. 2024 Jan 1;36(1):101932.