

Perspective

# Elevating Medical Education and Research in India: A Call for Quality Publications, Rigorous Promotion Criteria, and Equitable Funding

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In the dynamic landscape of Indian medical education and research, a profound analysis reveals a dichotomy of challenges and opportunities. This perspective delves into the complexities of quality publications emerging from medical colleges, the lenient criteria for academic promotion, the indispensable role of reviewers, the impact of digitalization, and the accessibility of article processing charge waivers in esteemed journals.

Quality publications are the linchpin of academic progress, acting as conduits for disseminating crucial knowledge, best practices, and innovations. However, the ease with which these publications are attained, and their pivotal role in academic advancement pose intriguing questions.<sup>1,2</sup> Behind every published paper are the reviewers, the unsung heroes of scientific publishing. These experts, often unsung gurus in the scientific community, offer their expertise altruistically, driven solely by their dedication to advancing knowledge. Astonishingly, these reviewers, despite their monumental contributions, remain unpaid volunteers, often sacrificing their time and effort without financial recompense. Research training for postgraduate students (PGs) presents a unique challenge. While formal education covers aspects of research methodology and scientific writing, the practical nuances are often imbibed through hands-on experiences in research projects. Reviewers from reputable journals are pivotal in this educational journey, providing invaluable feedback to budding researchers. The digital age has ushered in a new era of research and publication. Typewriters and hard copies are relics of the past, replaced by the seamless efficiency of the internet. Electronic journals have supplanted print, providing authors with intuitive platforms for manuscript submissions. Tools like reference management software and paraphrasing applications have become indispensable, enhancing the quality of research articles.

Publications undeniably serve as crucial markers for academic promotion, reflecting an individual's dedication to scholarly work and their contribution to the field. However, the quality of these publications varies significantly. To preserve the sanctity of the promotion process, it is imperative to recognize only the most esteemed

indexing databases, such as Medline/ PubMed and Science Citation Index (Web of Science).<sup>3</sup> Academic promotions in medical colleges should truly mirror an individual's scholarly accomplishments, rigor, and dedication. With the majority of journals transitioning to electronic formats, word count limits have become more flexible, enabling authors to present their research comprehensively. In a promising development, journals under the Springer Nature umbrella offer discretionary full waivers of article processing charges. This provision acts as a lifeline, especially for researchers facing resource constraints. Accessible through online portals (<https://www.biomedcentral.com/journals#Medicine-Public-Health>, <https://www.nature.com/nature-portfolio/about/npj-series>, <https://www.nature.com/srep/author-instructions>), these waivers simplify the financial burden on researchers. The application process, facilitated through <https://article-discounts-and-waivers.springernature.com/request>, requires authors to indicate their funding status. A signed waiver letter from the institute's head, elucidating the funding context, is mandatory. The quick response time, typically 2–3 days, makes this option accessible for researchers.

The funding landscape is evolving, with a notable shift toward funding interventional studies rather than descriptive research.<sup>4</sup> Funding agencies increasingly prioritize research focused on development, discovery, or delivery, sidelining age-old descriptive research. The new focal points are basic research aimed at novel interventions, development research refining existing interventions, and implementation research focused on overcoming barriers. Descriptive research, delving into disease burden and determinants, is deprioritized. Journals with impact factors above three tend to reject studies estimating prevalence or predicting common diseases.

In conclusion, India's medical education and research community are at a pivotal juncture, necessitating innovation and excellence. Quality publications, stringent promotion criteria, and equitable research opportunities are the keystones of progress. Embracing digital tools and acknowledging the invaluable contributions of reviewers are essential steps toward a brighter future for medical education and research in the country. By addressing these facets, India's medical community can elevate the pursuit of knowledge, surmounting barriers and fostering a culture of excellence.

**Conflict of Interest:** None

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