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Editorial

The Evolving Landscape of Medical Editing in Healthcare

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Abstract

Medicine is a dynamic field requiring healthcare professionals to stay updated with advancements and research. Medical editing plays a vital role in ensuring the credibility, accuracy, and transparency of scientific publications. Editors perform three key tasks: micro-editing (grammar and format), macro-editing (content impact and novelty), and proofreading.

The integration of AI has transformed medical editing, offering tools for grammar correction, plagiarism detection, and data handling. Adhering to established guidelines, such as SIMRAD, and maintaining high ethical standards are critical. However, challenges persist, including a lack of quality research and inadequate skills among supervisors in postgraduate programs.

To address these gaps, institutions must mandate training programs, enforce plagiarism checks, and promote ethical practices. Certification for supervisors and active involvement in medical editing by senior professionals are essential for advancing research quality and publication standards in Pakistan.

Keywords: Medical Editing, Artificial Intelligence, Plagiarism Detection, Research Quality, SIMRAD Structure, Ethical Publishing Practices Pakistan

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EDITORIAL

Medicine is an ever-changing field where the principle of "survival of the fittest" aptly applies. To thrive, healthcare professionals must adapt to continuous advancements and stay abreast of emerging horizons. New research is conducted daily, with numerous articles, case reports, editorials, and meta-analyses being published. In this context, medical editing has become indispensable [1].

The advent of artificial intelligence has revolutionized medical editing, with various software now available to correct spelling and grammar errors, check for plagiarism, and more [2]. Guidelines such as those provided by the ICMJE (International Committee of Medical Journal Editors) and AMWA (American Medical Writers Association), along with literature and books on scientific writing, are readily accessible online [3]. Editors play a crucial role in producing documents that guide patient care globally, contributing significantly to the research process by ensuring the publication of accurate, credible, reproducible, and transparent scientific data [4].

Active participation in the research process is vital to remaining relevant in the field. Despite this, there is a noticeable lack of quality research in our country. Postgraduate programs require original research, whether supervised by the College of Physicians and Surgeons (CPSP), the University of Health Sciences (UHS), or other universities. However, the question remains: how many of these efforts qualify for publication in international journals with impact factors and recognition? [5].

Medical editing involves three key steps:

1. Micro Editing (Copy Editing): Focuses on grammar, format, language, and the general tone of the article. It typically does not require subject matter expertise.
2. Macro Editing: Examines the subject's broader impact on existing literature and the novelty of the research. This step usually involves subject specialists.
3. Proofreading: The final review by the editor to ensure a transparent and error-free document ready for publication.

Elizabeth Wager and colleagues [4], in a systematic review, highlight the improvements in the accuracy and readability of published articles through intensive editing and checking. Armen Yuri Gasparyan and his team emphasize that extensive involvement in research, writing, reviewing, membership in professional editorial societies, and access to updated scholarly information are crucial for maintaining the necessary skills for effective medical editing.

A global survey by the International Association of Scientific, Technical, and Medical Editors revealed that key topics of interest include open access, new publishing models, communication, social networking, and impact metrics [6]. Oliver Diaz and colleagues [7] discuss the use of AI in medical editing, outlining steps such as acquiring and de-identifying images, data curation, image storage, and annotation. However, as AI usage increases, so does the deployment of software to detect its application, ensuring originality in scientific work.

The responsibility of ensuring that published articles are valid, transparent, credible, and reproducible lies with the editor. Editors must verify that articles are genuinely authored and not plagiarized. Adhering to the SIMRAD structure—Structured Abstract, Introduction, Materials and Methods, Results, and Discussion, followed by Conclusion and References—is essential [8]. Editors should be well-versed in authorship guidelines and vigilant against sting operations, which can involve fabricated content, fake authors, and affiliations [9].

In conclusion, to keep pace with the current era of research, technology, and the influx of data, active involvement in medical editing is essential for department heads and professors. Many supervisors in various universities lack the prerequisite skills for supervising trainees effectively. Certification programs, such as those run by UHS, could be mandated for such supervisory roles. Institutions should also employ software like Turnitin to check for plagiarism and ensure the authenticity of published data. Addressing the issue of purchasing research papers and taking disciplinary measures against unethical practices is crucial. The Pakistan Association of Medical Editors and HEC must ensure that healthcare professionals supervising trainees are proficient in grammar, medical terminology, medical ethics, and essential statistics for medical writing and editing.

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