

# Understanding Autoplagiarism, Its Relevance and Challenges in Occupational Medicine

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## Abstract

**Background:** Autoplagiarism, also known as self-plagiarism or text recycling, is a form of plagiarism where an individual reuses their own scientific work without appropriate attribution. In fields like medicine, including occupational medicine, the integrity of scientific publications is crucial because it influences the quality of the evidence guiding clinical practice and occupational health policies.

**Methods:** This study is a narrative review that reflects the understanding of self-plagiarism. Articles were obtained through searches on online databases such as Google Scholar, PubMed, ProQuest, and other open sources, published between 2019 and 2026.

**Results:** Autoplagiarism includes behaviors such as reusing text, duplicate publication, study fragmentation (salami slicing), and publishing updated work without proper references. Research involving students and medical professionals indicates that there is still a limited understanding of this particular issue. The advancement of digital technologies and artificial intelligence (AI) introduces new challenges for defining autoplagiarism as well as opportunities for identifying it. Ethically, autoplagiarism remains disapproved by standards such as the Committee on Publication Ethics (COPE) and the European Code of Conduct for Research Integrity, but it remains relatively unregulated legally in many regions. However, there are multiple approaches involving multiple parties, even also by utilizing artificial intelligence (AI) technology, to minimize and avoid such plagiarism.

**Conclusions:** Despite the ongoing debate, autoplagiarism is considered a serious form of ethical and scientific misconduct in medical research. Understanding the concept and consequences of autoplagiarism is important when publishing manuscripts to actively avoid misconduct, whether intentional or not. An attempt to improve academic awareness, alongside active collaboration among institutions, publishers, regulatory bodies, and individual researchers, is important for tackling these challenges.

**Keywords:** autoplagiarism, self-plagiarism, scientific integrity, research ethics, occupational medicine

## Abstrak

**Latar belakang:** Autoplagiarisme, juga dikenal sebagai plagiarisme-diri atau daur ulang teks, adalah bentuk plagiarisme di mana seseorang menggunakan kembali karya ilmiahnya sendiri tanpa atribusi yang tepat. Dalam bidang seperti kedokteran, termasuk kedokteran kerja, integritas publikasi ilmiah sangat penting karena memengaruhi kualitas bukti yang menjadi dasar praktik klinis dan kebijakan kesehatan kerja.

**Metode:** Studi ini merupakan tinjauan naratif yang membahas pemahaman mengenai plagiarisme-diri. Artikel-artikel diperoleh melalui pencarian pada basis data daring seperti Google Scholar, PubMed, ProQuest, dan sumber terbuka lainnya, yang dipublikasikan antara tahun 2019 dan 2026.

**Hasil:** Autoplagiarisme mencakup perilaku seperti daur ulang teks, publikasi duplikat, fragmentasi studi (salami slicing), dan menerbitkan karya yang diperbarui tanpa referensi yang tepat. Penelitian yang melibatkan mahasiswa dan profesional medis menunjukkan bahwa pemahaman tentang masalah ini masih terbatas. Kemajuan teknologi digital dan kecerdasan buatan (AI) memperkenalkan tantangan baru dalam mendefinisikan autoplagiarisme sekaligus peluang untuk mendeteksinya. Secara etis, autoplagiarisme tetap tidak disetujui oleh standar seperti Committee on Publication Ethics (COPE) dan European Code of Conduct for Research Integrity, tetapi secara hukum masih relatif belum diatur di banyak wilayah. Namun, terdapat bermacam-macam pendekatan yang melibatkan berbagai pihak, bahkan termasuk memanfaatkan teknologi kecerdasan buatan (AI), untuk meminimalkan dan menghindari plagiarisme semacam ini.

**Kesimpulan:** Terlepas dari perdebatan yang ada, autoplagiarisme tetap dianggap sebagai bentuk pelanggaran etika dan ilmiah yang serius dalam penelitian kedokteran. Memahami konsep dan konsekuensi autoplagiarisme penting saat mempublikasikan manuskrip untuk secara aktif menghindari pelanggaran, baik yang disengaja maupun tidak disengaja. Upaya untuk meningkatkan kesadaran akademik, bersama dengan kolaborasi aktif di antara lembaga, penerbit, badan pengatur, dan peneliti individu, sangat penting untuk mengatasi tantangan ini.

**Kata kunci:** autoplagiarisme, plagiarisme-diri, integritas ilmiah, etika penelitian, kedokteran kerja

## Background

Scientific integrity has always been the foundation of knowledge development in the field of medicine. Amid the rapid growth of global scientific publications, various forms of research ethics violations are increasingly occurring, including one of the most common being plagiarism in various forms. In the past decade, scientific attention has begun to focus on a specific form that researchers often do not realize, namely self-plagiarism or autoplagiarism, which is defined as the substantial reuse of scientific work that has been previously published by the same author without properly referencing the original work.<sup>1</sup> Unlike conventional plagiarism, this situation raises complex epistemological and ethical debates: on one hand, a writer cannot legally steal from themselves; on the other hand, reusing the same material in scientific publications can mislead readers, affect the validity of meta-analyses, and undermine trust in the peer review process.<sup>2,3</sup>

The phenomenon of autoplagiarism has increased alongside the “publish or perish” culture that dominates the modern academic world, where publication productivity becomes the main measure of a researcher’s and academic’s career.<sup>2</sup> In the context of occupational medicine, this issue is highly relevant. This field relies heavily on the quality and originality of research data to guide health and safety policies, including but not limited to determining exposure threshold values and creating protocols for preventing work-related diseases.

Nevertheless, the understanding of autoplagiarism among medical personnel and health researchers is still relatively low, as the studies in India suggest.<sup>4,5</sup> The statistics for similar populations in other countries, including those working in occupational medicine, still need to be examined.<sup>4,5</sup> On the other hand, the development of digital technology and artificial intelligence (AI) presents new challenges in defining and detecting self-plagiarism. AI-based text generation tools can facilitate the creation of new content from existing material, creating a grey area between legitimate paraphrasing and concealed self-plagiarism.<sup>6</sup> Meanwhile, pressure and publication demands are the main drivers of this behaviour in the global academic environment.<sup>7,8</sup>

Publication is important and shall be carried out with integrity, not merely to meet academic requirements. In the occupational health and medicine field, there are various research topics to explore for

authors seeking to improve their scientific publications. Plenty of data are available if we are about to look deeper into industries and companies, even though there could be some complications in gaining legal authorization to use the information for publications. Nevertheless, this kind of limitation shall not be the reason to lead authors toward scientific misconduct.<sup>9</sup>

Thus far, there is no specific data available regarding incidents of autoplagiarism in occupational medicine. According to Sholihah (2025), the principles of plagiarism and self-plagiarism in occupational medicine can be defined in the same way as they are in the general scientific research context.<sup>10</sup> However, in Okayay’s study (2024) about publication retraction in the field of Public, Environment, and Occupational Health, it was mentioned that the most common reasons for retractions were error, plagiarism, and duplication. It was found that 43 of the 192 articles analyzed were retracted due to plagiarism, including self-plagiarism. Journal of Toxicology and Industrial Health is among the top three with the most paper retractions, while the specific reasons were not explicitly mentioned.<sup>11</sup> It shows that toxicology as part of occupational medicine can be one of the many areas that can be prone to the practice of plagiarism.

Based on recent studies, part of the research that is prone to self-plagiarism is the easily reused parts, such as methods, procedures, subject criteria, instruments, analysis, and sections that use figures from same dataset.<sup>1,10,12</sup> Quaia (2025) notes that redundant publication most often involve the material and methods section because of its convenient reusability while changing only the population or research subjects.<sup>12</sup> While the topics that can potentially experience misconducts, including plagiarism, are the areas with high level of pressure for publication. This information can be applied in occupational medicine research to pay closer attention to the practice of autoplagiarism.

This literature review aims to provide a comprehensive understanding of self-plagiarism in medical research, particularly related to occupational medicine. By understanding the concepts, forms, identification methods, as well as ethical and legal aspects, researchers and clinicians in the field of occupational medicine are expected to avoid plagiarism when preparing high-quality, integrity-driven scientific works.

## Methods

This study is a narrative review which main focus is to reflect the understanding of self-plagiarism and its relevance to the field of occupational medicine. Author collects and synthesizes scientific articles, journals, ethics guidelines, and relevant publications from multiple online databases. These databases include, but are not limited to, Google Scholar, PubMed, and ProQuest. The key terms used for the search were “plagiarism”, “self-plagiarism”, “auto plagiarism”, “occupational health”, and “concept of self-plagiarism”. The process of online resource search was conducted in May 2026.

Author focuses on collecting sources from reputable journals and other credible academic platforms, while avoiding non-scholarly literature. Articles discussing the topic of type, aspects, understanding, and consequences of plagiarism in scientific writing were included in the review. Articles published in a language other than English were excluded. We accounted for resources from 2019 to 2026 to reflect relevance and current development on this topic. There were seven main sources included in this review.

A narrative review approach was chosen to focus on synthesizing the available evidence and publications regarding self-plagiarism in the context of scientific writing. The topic itself covers multiple aspects, including conceptual, empirical, and even legal dimensions, which are more appropriate to be examined interpretatively rather than using a systematic review that requires homogeneity of research questions.

Ethical clearance was not obtained since it was not applicable.

## Results

The term autoplagiarism, or more commonly known as self-plagiarism, has a variety of definitions and concepts that remain debated among academia. Self-plagiarism, often synonymous with text recycling, occurs when an author reuses content from a prior publication in a new manuscript without an appropriate citation. Assis et al. (2019) describe it as “the reuse of content previously published by the author in a new manuscript without proper reference to the prior work”.<sup>8</sup>

Rozkova and Isaeva (2022) present a different view on self-plagiarism amid its conceptual complexity; they claim it isn't true plagiarism because it's illogical for an

author to steal from themselves.<sup>3</sup> Nevertheless, from an ethical perspective in publishing, reusing one's own work without proper attribution is considered dishonest and damages trust in scientific writing. Meanwhile, the European Code of Conduct for Research Integrity explicitly defined autoplagiarism as “re-publishing substantive parts of one's own earlier publication, including translations, without duly acknowledging or citing the original”.<sup>3</sup>

Extracted across multiple sources, the scope and forms of autoplagiarism can be summarized into four main categories: text recycling, duplicate publication, segmented publication, and updated publication. Text recycling is the act of reusing short or long passages from existing papers that were published by the same author earlier, without proper reference to the specific work. This is the most common and well-known form of self-plagiarism.<sup>2,8</sup> Meanwhile, duplicate publication happens when the majority of one's manuscript substance overlaps with another article by the same author that has been previously published.<sup>1</sup> Duplication involves the identification of the same hypothesis, method, and results, with the absence of new information.<sup>8</sup> Possible scenarios encompass submitting the same manuscript (with or without language translation) to multiple publishers without mentioning the original text that was published first. Segmented or fragmented publication is known as “salami slicing”, where the duplication occurs in the research data and results, typically to divide their big work into smaller fragments and target publication in different journals. It is widely assumed that this practice is done to pose as if each paper were from independent studies, resulting in a boosted number of publications.<sup>1,8</sup> Lastly, updated publication: when the author(s) submit a report that is almost identical to a published one, the only difference is adding extra points, samples, or extending the study period in order to try passing it as new research.<sup>8</sup>

## Identifying Autoplagiarism

There are several ways to identify plagiarism, including self-plagiarism. In general, it can be divided in two approaches: (a) automated analysis using specific detection tools/software and (b) manual analysis using indicators/criterias to assess duplication.<sup>5,8,12,13</sup> In automatic detection, various software tools are used to assist identification, including Turnitin, iThenticate, Urkund, CrossCheck, eTBLAST, Plagiarism Checker X,

Plagiarisma, Plagium, Dupli Checker, and PlagTracker, as well as manual searches via Google.<sup>5,8,13</sup> These tools help to measure the percentage of similarity between a manuscript and a database of published articles.<sup>8,13</sup> Mohammed et al. (2015) note that there is no universally accepted 'matching percentage' for plagiarism thresholds. However, some institutions and journals set a rejection threshold between 20% and 30% for manuscripts.<sup>13</sup> According to Gupta et al. (2024), in India, the INFLIBNET (Information and Library Network) Centre has offered access to some tools such as iThenticate and Turnitin under the Shodhganga project for more than one hundred universities to assist them in detecting plagiarism.<sup>5</sup> In addition, they provided another anti-plagiarism software called URKUND since 2015 for selected universities. It is also reported that the use of Turnitin and iThenticate has shifted towards URKUND and other similar software.<sup>5</sup> Researchers in Jawaharlal Nehru University (JNU) Central Library were implementing a policy to measure and fight against plagiarism in academic writing through the use of tracking system and the help of Turnitin since 2012. This measure was done mostly to track the relatively recent submission of theses and dissertations.<sup>5</sup>

Meanwhile, the manual analysis can be done using various indicators; for example, Committee on Publication Ethics (COPE) recommends that editors avoid setting a fixed percentage of duplication as a trigger for investigation. Instead, they should evaluate the nature and extent of duplication, as widespread duplication of short phrases across the manuscript may be less concerning than duplications densely packed in specific paragraph sections.<sup>14</sup> To check for duplicate publication, identification can also be made by recognizing findings of similar methods, results and hypotheses; same/similar sample size; existence of at least one common author; and not enough additional information provided to justify a brand new publication when compared to the comparison article.<sup>8</sup> In case of salami slicing, editors may check if some articles share some research questions, methods, populations, samples, control groups, data, and results that overlap each other without a good contextual justification of why they are split.<sup>12</sup>

Rozhkova and Isaeva (2022) mention that automatic detection has limitations; it alone is insufficient to accurately identify autoplagiarism. Detection algorithms alone usually cannot distinguish whether a text fragment is taken from someone else's

work or the author's own work, so manual verification by experts is still necessary.<sup>3</sup> Although there can be such non-textual indicators, which Drisko (2023) identified – several signs that may trigger suspicion of plagiarism or self-plagiarism, including sudden changes in writing style or terminology within a paragraph, inconsistencies in sentences compared to the rest of the manuscript, and concepts that are too advanced relative to the overall writing level.<sup>2</sup> Only experts can provide evidence-based opinions that the fragments marked as plagiarism actually belong to the authors themselves.<sup>3</sup> During the process of publication, reviewers can often identify misconducts such as plagiarism and salami slicing, but editors and reviewers are not always able to check the whole research in depth.<sup>15</sup>

### **Understanding of Medical Academia about Autoplagiarism**

A multicenter study by Raj et al. involving 786 resident doctors and junior medical staff in India showed that the average knowledge score about plagiarism was only 4.43 out of 10, and only 2.6% of participants achieved the highest score. Even more surprisingly, no significant change was found in this level of understanding over five years (2014-2019), indicating stagnation in educational efforts. Attitudes toward plagiarism also tended to be moderate across the three measured components: permissive attitude, critical attitude, and subjective norms.<sup>7</sup>

In another study by Patil and Ganganahalli involving 91 postgraduate medical students in India, it was shown that although 97.7% of participants claimed to know what plagiarism is, about 30% of them admitted to having committed plagiarism during their academic journey. The most frequently cited reason was the ease of technology (copy-paste) at 30.5%, followed by time constraints at 20.9%, and pressure to publish during studies (16.3%).<sup>4</sup> Specifically regarding autoplagiarism, this study found that before the educational session, 47.7% of students agreed that reusing their own work does not constitute plagiarism. After participating in the session, this percentage decreased to 39.6%, indicating a positive effect of the educational intervention. Additionally, 34.9% of students initially believed autoplagiarism should not be punished because it did not cause harm, but this percentage dropped to 24.2% by the end of the session.<sup>4</sup>



It is important to note the discrepancy between conceptual understanding and practical application. Students may know the general definition of plagiarism but may not grasp, or even understand, the nuances of self-plagiarism, especially in the context of scientific publication. Factors such as never having published an article before and working at government institutions (compared to private ones) are significantly correlated with lower knowledge scores.<sup>7</sup>

### **Ethical and Legal Aspects of Autoplagiarism**

Self-plagiarism is at the intersection of academic ethics, publication ethics, and copyright law, each of which has a different approach to this practice. The gap between ethical norms and legal regulations as identified by some sources<sup>3,6</sup> creates a gray area that can be exploited by less-honest researchers.

From an academic ethics perspective, self-plagiarism is widely condemned by various international guidelines. The European Code of Conduct for Research Integrity explicitly categorizes self-plagiarism (“re-publishing substantive parts of one’s own earlier publications”) as a form of research misconduct, along with fabrication, falsification, and authorship manipulation.<sup>12</sup> Meanwhile, most academic institutions and research regulatory bodies do not explicitly categorize self-plagiarism as a standalone ethical violation, but they consider it an unacceptable practice. The European Code of Conduct for Research Integrity does not classify self-plagiarism as a violation, but rather mentions it as ‘other unacceptable practices.’ Similarly, the US Office of Research Integrity (ORI) officially does not consider self-plagiarism as research misconduct, suggesting that such cases be handled at the institutional level.<sup>1</sup>

From the view of publication ethics, COPE has a more assertive stance, recommending that editors consider retraction if there is substantial overlap between two articles by the same author. COPE emphasizes that self-plagiarism is a transparency issue—acceptable as long as the author discloses previous publications and includes proper citations.<sup>1,14</sup>

From the legal standpoint, Rozhkova and Isaeva provide a comprehensive legal analysis and conclude that ‘auto-plagiarism’ is technically not a form of plagiarism because it is impossible for an author to violate their own intellectual property rights. However, if the author has transferred exclusive rights to a publisher under a licensing agreement, republishing the same material

without the publisher’s permission may constitute a breach of contract.<sup>3</sup>

### **Consequence of the Misconduct**

Despite ongoing debates about its definition, the real-world effects of self-plagiarism can be quite harmful. Assis et al. (2019) highlight several issues, such as wasting reviewers’ and editors’ time, cluttering the scientific literature with redundant data, consuming publication resources unnecessarily, skewing meta-analyses by overstating an intervention’s effectiveness, infringing copyright laws, harming authors’ careers, and lowering the quality and impact factor of the journals publishing the work.<sup>8</sup>

Autoplagiarism can be seen as an ethical breach in research and scientific publishing because it harms scientific integrity. This kind of consequence arises from the nature of scientific publication’s purpose: to provide new insights and knowledge, not to repeat the same results all the time. When authors recycle text, data, or research results without proper acknowledgment, that can mislead the readers and academic community regarding the novelty of such research. That is why it is important for publishers and accreditation bodies to maintain the credibility and integrity of science.<sup>10,12</sup>

The consequences of plagiarism, including self-plagiarism, can be divided into several categories. Firstly, academic consequences such as retraction of a publication, a decrease in the citation index, and the loss of future publication opportunities. In Stretton’s publication (2012), it was noted that of the 213 retracted publications due to misconduct, almost half were due to plagiarism, even though self-plagiarism was not specifically differentiated.<sup>17</sup> Retracting publications found to involve self-plagiarism is also not a trivial matter. Sevryugina and Li (2026) found that the average retraction time for autoplagiarism is 3.2 years—much longer than for conventional plagiarism (1.7 years)—indicating that this subtype of plagiarism is more difficult to identify and requires a longer investigative process. For image duplication specifically, the median retraction time even reaches 4 years.<sup>1</sup> Secondly, personal consequences for the author or researcher, including but not limited to ruined reputation, mistrust from colleagues, loss of opportunities in career pursuit, or future funding. Lastly, institutional consequences, where the autoplagiarism case can potentially harm the institutions (e.g. universities, research centers, etc.)

and even result in sanctions. The last consequence shows how such misconduct can result in systemic damage, when it does not only harm the credibility of an individual but also the institution that oversees them.<sup>1,12</sup>

The damage scale from autoplagiarism can vary between different types of misconduct. The practice of text recycling could incur a different penalty compared to salami slicing. The sanctions can range from a simple warning to retraction or even prohibition from publication in specific journals. Either way, in the long run, when not handled wisely, plagiarism misconduct will result in reduced public trust in research, hinder the development of science, and cause reputational damage that is difficult to recover from.<sup>1</sup>

## Discussion

### Reasons for Autoplagiarism

Findings from this literature review consistently describe self-plagiarism as a complex and multidimensional phenomenon. On one hand, there is no global consensus regarding its definition, boundaries, or consequences. On the other hand, the tangible impact of self-plagiarism on scientific integrity is undeniable. Data from Severyugina and Li indicate that self-plagiarism accounts for approximately 25.4% of all retraction cases in the Retraction Watch Database from 2001 to 2022, making it one of the leading causes of retraction.<sup>1,8,12</sup>

According to Mohammed et al. (2015) the causes of such plagiarism practice can be summarized in these five points: (a) misbelief, (b) lack of time management skills and writing under stress, (c) immaturity of writing skills, (d) deliberacy, and (e) high pressure to publish under the 'publish or perish' rule.<sup>13</sup> Some other reasons may be greed,<sup>8</sup> or the ignorance of research supervisors and scholars about plagiarism and ways to avoid it.<sup>5</sup>

Interestingly, the distribution of autoplagiarism types varies widely across scientific fields. In the biomedical field, which is highly relevant to occupational medicine, image duplication is dominant, whereas in social and business fields, text article duplication is more common. This reflects differences in cultural norms and scientific conventions among disciplines.<sup>1</sup> In the context of occupational medicine, where experimental data and images such as radiological examination results or dose-response curves are highly valuable, the risk of

unintentional or intentional image duplication requires special attention.

The finding that understanding of plagiarism and self-plagiarism among medical personnel is still very low, especially in developing countries, has important implications for occupational medicine. In Indonesia, similar to India<sup>7</sup>, the pressure to publish scientific research as a requirement for academic roles and promotions fosters environments prone to autoplagiarism, often occurring without the authors fully realizing it.<sup>4,18</sup> The low level of knowledge about autoplagiarism among Indian medical students – reflected in an average score below 50% in the study by Raj et al. – likely also represents a similar situation in many developing countries, including Indonesia, where medical education curricula have not systematically integrated publication ethics.<sup>7</sup> The fact that 30% of students in Patil and Ganganahalli's study admitted to having committed plagiarism indicates that this violation of academic ethics has been persistent, even among students pursuing higher education.<sup>4</sup>

From an occupational medicine standpoint, where the research ideas, methods, or populations can be quite specific, the integrity of scientific data has certain implications beyond the academic area, making this situation grow more urgent. Researchers in this field often work with highly sensitive data related to exposure to hazardous substances, health threshold values, or evaluations of company health and safety (OHS) programs. Studies in this field are also frequently involved in longitudinal research and follow a cohort of workers over many years, creating structural conditions that facilitate salami slicing, which is publishing each wave of data as a separate article without sufficiently acknowledging that the data comes from the same population. Duplicating or slicing such data can potentially distort risk estimates<sup>8,12</sup>, which may eventually influence health and safety policies when used as a basis for policy-making, concerning the safety of millions of workers.

### Challenges in the Digital Era and Technologies Advancement

The advancement of technologies in this digital era has put a shift in the way we deal with plagiarism. The proliferation of online information and the technical convenience of copy-pasting have made various forms of plagiarism and self-plagiarism much easier to commit.

Gupta et al. indicate that the massive use of the internet plays a major factor in the increase of plagiarism among academics.<sup>5</sup>

In addition, with the emergence of AI-based tools such as automatic paraphrasing and neural translators, these things certainly create new significant challenges. Rozhkova and Isaeva note that plagiarists can now use applications that automate text paraphrasing, and even translation apps that were not originally designed for this purpose can be exploited to make ‘cosmetic’ changes without altering the substance. This phenomenon creates a kind of ‘arms race’ between methods of hiding plagiarism and methods of detecting it.<sup>3</sup> Generative AI has also entered the discussion about the future of plagiarism topics. Identifying AI tools for creating text and images is now a factor that needs to be considered in redefining and regulating autoplagiarism.<sup>1</sup> For example, Oxford University has even updated its definition of plagiarism to explicitly include content created with the help of AI.<sup>5</sup>

The evolution of technologies has become a double-edged sword regarding plagiarism in this era. Not only does it facilitate the practice of misconduct, but it also helps detect it when implemented wisely. In addition to Turnitin for text, AI-based image detection tools are now increasingly being implemented by major publishers. However, technology-based detection alone still has significant limitations, especially for translation autoplagiarism and data duplication.<sup>1,3</sup> Therefore, the use of AI in academic writing requires new policy and framework that has not yet been fully developed by many educational institutions.<sup>6</sup>

### Strategies for Addressing Autoplagiarism

Based on the literature reviewed, various stakeholders have different roles and responsibilities in addressing autoplagiarism:

- **The Role of Educational Institutions.** Drisko emphasizes that formal education on plagiarism and self-plagiarism must be provided consistently at all levels of education.<sup>2</sup> Institutions need to develop clear policies, widely distribute them, and require students to sign a statement confirming they have received this education. Raj et al. recommend that publication ethics be formally incorporated into medical school curricula, not only at the postgraduate level but also at the undergraduate level.<sup>7</sup>

- **The Role of Journals and Publishers.** Sevryugina and Li suggest that journals implement more stringent plagiarism checks, including the use of AI-based image-detection tools, and train peer reviewers to recognize signs of duplication.<sup>1</sup> Assis et al. add that journals need to make their self-plagiarism policies clearly available in author guidelines.<sup>8</sup>
- **The Role of Regulatory Bodies.** Although ORI does not classify self-plagiarism as research misconduct, Sevryugina and Li (2026) criticize this stance as concerning, given the advances in digital platforms for research dissemination. They suggest that centralized authorities such as COPE or ORI take a more active role in standardizing detection and response to self-plagiarism.<sup>1</sup>
- **Individual Researchers’ Role.** Researchers are responsible for understanding the policies of the journal to which they submit their manuscripts, always including proper citations when reusing prior content, and consulting with the editorial team if they have any doubts.<sup>8</sup>

### Strategies for Authors to Avoid Self-plagiarism

There are numerous ways to avoid autoplagiarism as a writer. It is highly important that authors – including students, residents, junior researchers – understand and are aware of the necessity of citing the primary source of their material, even when it comes from their own published work. Source credit should be given whenever a writer incorporates ideas, theories, facts, statistics, graphs, or pieces of information from other publications into their recent work.<sup>8</sup> Substantial rewriting rather than just paraphrasing when discussing a topic that has been previously written about should be encouraged. Drisko cites Roig’s recommendation that researchers writing about a topic they have previously published should work on a new text without reviewing their prior work.<sup>2</sup>

In the context of longitudinal studies that often happen in the medical field, including occupational medicine, researchers are encouraged to state explicitly in every publication that the data are derived from an existing cohort, without failing to properly refer to prior publications from the same cohort, and additionally mention clearly the new contribution in the recent manuscript. Honesty and transparency to the editor are essential, on top of a correct citing practice.<sup>12,19</sup> On

the other hand, careful data and image management is no less important. To prevent unintentional image or graph duplication, researchers are expected to create an organized data management system, clearly record which images and data have already been published, and regularly update it with new images while including citations for previously published ones.<sup>1</sup>

Laziková & Rumanovská (2023) emphasize the importance of ethics education and critical thinking as long-term approaches. Training courses for academia focused on plagiarism, including AI and its potential use in academic research, can serve as a preventive step to minimize plagiarism and autoplagiarism.<sup>3</sup> Patil & Ganganahalli (2024) concluded from their study that comprehensive hands-on orientation sessions before students start their dissertations or theses significantly increase awareness and change perceptions of plagiarism and self-plagiarism. This indicates that structured educational interventions, even in a short duration, can have a meaningful impact.<sup>4</sup> Continuing education in the era of evolving norms and policies regarding plagiarism should be encouraged and sought out proactively by academics and medical researchers. Additionally, academia – especially students and young researchers – is recommended to actively monitor the development of publication ethics regulations and attend relevant training periodically.<sup>4,7</sup> Finally, consulting with and gaining support from senior academics are also key factors in shaping ethical behavior in scientific work writing.<sup>5</sup>

## Conclusions

This review has tried to comprehensively examine the phenomenon of autoplagiarism from various perspectives relevant to academics and researchers in the field of occupational medicine. Autoplagiarism (or self-plagiarism) is often referred to as the use of one's own ideas from prior publications in a recent paper without proper acknowledgment. While the concept itself can be debatable, as logically the ideas were the author's own intellectual property, autoplagiarism remains widely considered as a scientific misconduct which carries similar weight and consequences as other types of plagiarism. Therefore, it is important for all authors to thoroughly understand the key aspects and processes of scientific writing to make better judgments when constructing manuscripts and to avoid any misconduct,

whether intentional or not.

A commitment to ethical publishing practices in the field of occupational medicine is not just about academic reputation, but also a professional and moral responsibility to the community and the workers served. Self-plagiarism poses a significant issue in the global scientific publishing ecosystem and challenges the integrity of scientific research. Data shows that cases of self-plagiarism account for more than a quarter of all retractions in the past two decades, with a trend of increasing year by year.<sup>1</sup> Lack of conceptual understanding among medical personnel and medical students is also a major risk factor for unintentional autoplagiarism, the need for formal education on publication ethics starting from the undergraduate level should be emphasized.<sup>4,7</sup>

Autoplagiarism is not entirely unavoidable; there are feasible strategies to minimize it. The digital era and AI present new challenges that require adjustments in approaches to detecting and preventing autoplagiarism. While automated detection tools are becoming increasingly capable, competent human judgment remains crucial. Solutions to the challenge are multi-stakeholder in nature, requiring active collaboration among educational institutions, publishers, research regulatory bodies, and individual researchers.

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