

PLAGIARISM AND ITS REPERCUSSIONS: A PRIMER ON RESPONSIBLE SCIENTIFIC WRITING

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Abstract

Background: Plagiarism, in simple words meaning theft of ideas or text, is a grave scientific misconduct that is talked about frequently, however is notable in its conspicuous absence from the formal educational curriculum. Students and young researchers tend to engage in this malpractice, intentionally or unintentionally, due to various reasons.

Aim: In this review, we aim to discuss a clear concept about plagiarism from its origin to its consequences, with special considerations about its status in the COVID-19 pandemic. This lucid conceptualization will help young authors invest in original research in terms of both the idea and the script, avoiding unnecessary rejections and breach in medical ethics.

Search Strategy: An electronic search strategy was performed on MEDLINE using the following keywords: "Plagiarism" OR "Plagiarism AND reasons" OR "Plagiarism AND consequences OR retractions" OR "Plagiarism AND detection".

Results: Of 2112 articles obtained, 36 were selected for the review. The main reasons for this malpractice were pressure for publication under a limited time frame along with a lack of training for scientific writing.

The forms of plagiarism observed include intentional and unintentional, theft of ideas, copying verbatim, graphics, self-plagiarism and translational plagiarism. Use of various software are available for detection of plagiarism like iThenticate, Turnitin Feedback Studio, Grammarly etc along with careful reviewing by authors, reviewers and editors can detect this menace and help maintain originality in science. The consequences can be severe, ranging from defamation to monetary to legal action against the authors. Conducting interactive workshops on scientific writing along with promoting creativity in thought at the level of grass-root education is the key to preventing the scientific misconduct of plagiarism amongst students and young researchers.

Conclusion: Plagiarism is a serious scientific misconduct that must be discussed with students and young researchers, and its prevention is the key to fostering growth in medical science and academics.

Keywords: COVID-19, Curriculum, Graduate medical education, Malpractice, Publication ethics, Students

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INTRODUCTION

“Just like the drone, most plagiarists have no skill to improve, industry to acquire or taste to select. They imprudently prefer already made honey from the hive.”

-Oscar Wilde

Scientific publications are means of communicating novel ideas and hypotheses. The originality of the idea as well as the script is the essence of scientific communication. Plagiarism is copying someone else's work or ideas or data and projecting it like your own. It is an act of academic misconduct which may happen intentionally or ignorantly, for both published as well as unpublished material in the form of a manuscript or print or electronic media without giving due credit to the originator. It is one of the most common causes of rejection of manuscripts for publication accounting for 23% of rejections as per an article by Nature's publishing group [1-2]. It is also one of the commonest reasons for retraction of manuscripts second only to a compromised review process [3]. There have been numerous articles discussing this topic, but our focus will be on plagiarism-history, definition, types, recognition, and its consequences, especially retractions as well as the status of plagiarism in light of the COVID-19 pandemic.

HISTORY OF PLAGIARISM

Plagiarism is not restricted to the scientific community and in fact, the original concept came from the ancient history of stealing creative ideas and artwork of artists. Most of the religious texts were authorless and were freely copied and incorporated into later works [4]. Subsequently, during times of renaissance, artists used to sign their artwork in terms of mentioning their credibility.

The Latin word "*plagiarius*" means "kidnapper", was first used by the Roman poet Martial who accused another poet for "kidnapping" his verses [5]. The term "*plagiarius*" made way into the English language in the 17th century as "Plagiary" by the author and satirist Ben Johnson to describe literary theft [6].

Gradually, it made its way into science and academia with the first article discussing plagiarism published in Science in 1896 [7]. Since then, about 11000 articles have been written about plagiarism as per Pubmed Central. But the demon of plagiarism seems far from gone.

SEARCH STRATEGY

An electronic search strategy was performed on MEDLINE as per recommendations for drafting narrative

reviews [8] using the following keywords: "Plagiarism" OR "Plagiarism AND reasons" OR "Plagiarism AND consequences OR retractions" OR "Plagiarism AND detection". Articles in language other than English were excluded (**Figure 1**). After an initial screening of titles and abstracts, relevant articles were retained. The qualifying full-text publications and their citations were carefully reviewed to determine whether information on the topic of interest was included.

Additional information pertaining to specific sections was obtained through an individualized search strategy: Plagiarism AND COVID-19, Plagiarism AND Prevention.

PLAGIARISM AND ACADEMIA

The academic world is a high-pressure zone and with the fundamental idea of "Publish or Perish", students and young researchers face immense burdens for publications for better job opportunities, promotions and prosperity in the academic world. Many factors have been identified for influencing the need to plagiarize in students [9]. Some identified barriers for the prevention of the practice of plagiarism are [9–14]:

- High workload (multiple assignments in a stipulated time frame)
- Promoting rote learning and memorization (favouring textbook material over experimental method)
- Decreasing individual practical activities (missing overt real-life experiences)
- Punishment over rewards (negative reinforcement behaviour)
- Lack of interactive sessions (teacher-student engagement)
- Lack of sessions on effective and ethical scientific communication in the academic curriculum as well as lack of awareness of the consequences. About 70% of students and young researchers had not received training regarding the same in a survey from Iran and Pakistan. Similarly, another survey from non-Anglophonic countries recommended specific training on scientific communication for young researchers as part of the curriculum.
- Lack of proficiency in the language required. A study from a leading journal of medical genetics identified plagiarism in 17% of articles with over 82% being from non-Anglophonic countries [15].

The major concern lies deep rooted in the education system which promotes memorization and spoon-feeding rather than innovation [9-10]. The education

system endorses conventional textbook learning which subconsciously expels innovative thought in young minds [16]. Further, the immense scientific information available readily on the world wide web makes replication of material easier than ever.

FORMS OF PLAGIARISM

According to Fishman, Plagiarism is defined as, "Use of words, ideas, or work products attributable to another identifiable person or source without attributing the work to the source from which it was obtained in a situation in which there is a legitimate expectation of original authorship in order to obtain some benefit, credit, or gain which need not be monetary" [17] (**Figure 2**).

Many classifications have been used to define types of plagiarism. It may be intentional or unintentional, both liable for the consequences of scientific misconduct [18]. The different attempts at classifying plagiarism are summarized in **Table 1**.

In the simplest form, it can be:

Plagiarism of ideas

Using ideas obtained from presentations, unpublished work submitted for grant applications, peer review or from students, and putting it forward as an original work.

Plagiarism of text

Is copying text as it is from a previously published work. Concepts from previous articles can be used with appropriate referencing, however, text and paragraphs cannot be copied even if the due reference to the original work is provided. This can be of various subtypes:

- Direct: Copying the text as it is with or without references
- Paraphragiarism or patch writing: Copying text with replacement or change of a few words

Plagiarism of Graphics

Use of images or tables with or without referencing, or use of ideas in the form of an image without official permission from the source.

Self-Plagiarism

Use of one's own previously published work in another paper without appropriate referencing to the original work.

Translational Plagiarism

Publishing the same work in different languages without the permission of the primary publisher.

Others are collusion, manipulation of citations and compound plagiarism which can face legal consequences [16,19-20].

PLAGIARISM DETECTION

As the internet has made it easy to plagiarize, technology has been harnessed in the detection of the same. Multiple software has been developed over the past decade for the detection of plagiarism. They're both freely available and paid, and can be used for academic publishing by authors, editors and reviewers as well as for educational purposes by students and teachers. These checkers scan the text and match it with their database which then creates an output highlighting the parts which are similar to previously published work and give a percentage of the similarity. Many journals have adopted plagiarism checkers as part of their screening process but the defining levels vary from 15 to 80% for different journals [21,22]. The rates of papers with plagiarism vary from 6-23% as per most published data [21,23]. The cost of the software and the labour seems justified in a recent study from two radiology journals in preventing plagiarized low-quality work [24]. Some of the various software available for plagiarism detection and their properties are summarized in **Table 2**. Others available include viper, Plagiarisma, PlagiarismChecker, PlagTracker, DupliChecker, CopyLEaks etc.

In addition to software that merely perform text matching with a percentage of matching as output, the peer review process by editors and reviewers is irreplaceable. Some types of plagiarism like those of ideas cannot be detected by these. Further, some terminologies especially under methodology and statistical analysis is usually common with limited word liberty available. Hence, some amount of plagiarism may be acceptable.

CONSEQUENCES

Plagiarism contributes to academic fraud and can have serious consequences for authors and editors. It can result in a formal disciplinary action, suspension from the medical council on grounds of unethical practice and scientific misconduct, at times even blacklisting. It can result in defaming of the authors with loss of reputation in the medical community. Violation of copyright can result in legal and monetary consequences [25,26].

When faced with plagiarism before publication, the editors can simply reject the article and/or inform the authors of the same. If it has come to notice after publication, the journal may publish an erratum, apology letter, retract the article or levy a penalty on the authors [25,26].

A Committee on Publication Ethics (COPE) has been put together which lays down policies for ethical scientific writing and conduct as well as action to be taken in case of any breach [27].

Retractions

Plagiarism is one of the most common causes of retraction of papers. A study of retractions over 20 years from Iran affiliated papers identified 697 papers of which 26% were due to plagiarism [28]. Another study that focused on open access journals identified 621 retractions of which 20% were contributed by plagiarism. The majority of retractions were from China, India, Iran and USA [29]. A study from Brazil revealed plagiarism as the most common reason for retractions [30]. In recent years, more journals are actively retracting fraudulent articles which is a positive sign for the academic community and promotes genuine research [31].

PLAGIARISM AMIDST THE COVID-19 PANDEMIC

The COVID-19 pandemic has made the online method of learning of central importance. Online learning platforms have evolved dramatically to keep pace with maintaining distance learning for continuing education. So, assignments and periodic assessments were carried out digitally. Students had free access to internet resources making it easier to copy and reuse data. A study evaluated plagiarism using Turnitin checker tool on students in a semester exam during the COVID-19 pandemic and found 57%-95% similarity in the content submitted by students [32]. On a subsequent questionnaire-based survey, most of the students were aware of the concept of plagiarism but continued to do so due to language difficulties, tight deadlines and unfamiliar materials [32]. The integrative social contract theory was popularized by maintaining a symbiotic relationship between the student and the educator with a partial solution for rising plagiarism in the pandemic era. This theory states that the educator needs to be more interactive in an online learning module and shared decision making is required for assignments [33].

On the scientific literature front, multiple articles have been retracted from journals as well as preprint servers. A study identified, 46 retractions over 6 months in the latter half of 2020 of which seven were due to plagiarism. The COVID-19 pandemic was viewed as an opportunity for rapid publications as most journals had articles on COVID-19 listed as a priority for publication. This led to pressure for publishing novel ideas in a limited time which could have resulted in resorting to scientific misconduct to leapfrog in the race for publications.

PLAGIARISM PREVENTION

Prevention of theft of ideas and work is the essence of maintaining the originality of scientific writing. These can be done by organizing training and courses for young researchers to impart knowledge about what is plagiarism, means of avoiding it and the use of appropriate software to detect it. Consequences of plagiarism, as well as ethical conduct in scientific writing, are also important topics to be discussed. However, there are mixed effects of training on the attitude of students towards plagiarism with a better effect of practical courses as per a recent systematic review [34,35]. A recent study from Qatar reported a multipronged strategy consisting of incorporation of a plagiarism policy in the course website and handbook, conduction of seminars and tutorials, and incorporation of a plagiarism checker on the submission website that automatically detected plagiarism reduced its incidence from 44 to 28% [36].

The long-term solution for this deep-rooted problem lies in correcting the education system from its base by instilling the importance of creative thinking and reducing reliance on bookish learning.

The use of original ideas for research and an extensive literature search are the first steps towards avoiding plagiarism. Researchers and students must add a plagiarism check as an additional step to the proof-reading of a manuscript before submission to detect and avoid any unintentional plagiarism. Furthermore, a recent study identified the absence of a statement regarding plagiarism in 55% of journal websites with a detailed description present only in 25% of them. Thus, a detailed policy statement about plagiarism should be present on all journal websites on their home page and instructions to the authors page [37].

CONCLUSION

Plagiarism is an ethical breach in academic flourishment. The main aim is to foster original research and pay gratitude to the originator in the field. It can have serious consequences and can haunt the reputation of students and researchers in their future career. Case-based training modules with an explanation of the consequences, clear statement about plagiarism policies on university and journal websites is the key. Further, the promotion of originality in young minds right from primary school days is the eventual pillar of fostering originality of work not limited to the field of science.

AUTHOR CONTRIBUTIONS

SM and PM were both involved in the conceptualization, drafting, and editing of the manuscript.

CONFLICTS OF INTEREST

Both authors have completed the ICMJE Disclosure Form (<http://www.icmje.org/disclosure-of-interest/>; available from the corresponding author). Both authors declare that there are no potential conflicts of interest.

DISCLAIMER

The authors state that no part of this manuscript is copied or published elsewhere.

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REFERENCES

1. Ali J. Manuscript rejection: causes and remedies. *J Young Pharm* 2010;2(1):3-6.
2. Li S. Journal Review Process Increasingly Includes Check for Plagiarism. *The Chronicle of Higher Education Website* 2010. Available from: <https://science.lpnu.ua/ujmems/review-process-and-plagiarism-detection> [cited 2022 Mar 9].
3. Moylan EC, Kowalczyk MK. Why articles are retracted: a retrospective cross-sectional study of retraction notices at BioMed Central. *BMJ Open* 2016;6(11):e012047.
4. Vinod KR, Sandhya S, Sathish Kumar D, Harani A, David Banji and Otilia JF Banji. Plagiarism-history, detection and prevention. *Hygeia.J.D.Med* 2011;3(1):1-4.
5. The Perfectly Acceptable Practice of Literary Theft: Plagiarism, Copyright, and the Eighteenth Century. Available from: <https://www.writing-world.com/rights/lynch.shtml> [cited 2022 Mar 9].
6. Mallon T. *Stolen Words. The Classic Book on Plagiarism*. Reprint edition. San Diego, USA: Harvest Books; 2001.
7. Halsted GB. Compliment or Plagiarism. *Science* 1896;4(102):877–878.
8. Gasparyan AY, Ayvazyan L, Blackmore H, Kitas GD. Writing a narrative biomedical review: considerations for authors, peer reviewers, and editors. *Rheumatol Int* 2011;31(11):1409-1417.
9. Arce Espinoza L, Monge Nájera J. How to correct teaching methods that favour plagiarism: recommendations from teachers and students in a Spanish language distance education university. *Assess Eval High Educ* 2015;40(8):1070–1078.
10. Davis M, Carroll J. Formative feedback within plagiarism education: Is there a role for text-matching software?. *Int J Educ Integr* 2009;5(2):58–70.
11. Dee TS, Jacob BA. Rational Ignorance in Education A Field Experiment in Student Plagiarism. *J Hum Resour* 2012;47(2):397–434.
12. Rokni MB, Bizhani N, Habibzadeh F, Farhud DD, Mohammadi N, Alizadeh A, Rokni L. Comprehensive Survey of Plagiarism in Iran. *Pak J Med Sci* 2020;36(7):1441-1448.
13. Javaeed A, Khan AS, Khan SH, Ghauri SK. Perceptions of plagiarism among undergraduate medical students in Rawalpindi, Pakistan. *Pak J Med Sci* 2019;35(2):532–536.
14. Gupta L, Tariq J, Yessirkepov M, Zimba O, Misra DP, Agarwal V, et al. Plagiarism in Non-Anglophone Countries: a Cross-sectional Survey of Researchers and Journal Editors. *J Korean Med Sci* 2021;36(39):e247.
15. Higgins JR, Lin F-C, Evans JP. Plagiarism in submitted manuscripts: incidence, characteristics and optimization of screening—case study in a major specialty medical journal. *Res Integr Peer Rev* 2016;1(1):13.
16. Ahmed S, Anirvan P. The true meaning of plagiarism. *Indian J Rheumatol* 2020;15(3):155-158.
17. Fishman T. “We know it when we see it” is not good enough: toward a standard definition of plagiarism that transcends theft, fraud, and copyright. 4th Asia Pac Conf Educ Integr 4APCEI 2009. Available from: <https://ro.uow.edu.au/apcei/09/papers/37> [Accessed March 15, 2022].
18. Das N. Intentional or unintentional, it is never alright to plagiarize: A note on how Indian universities are advised to handle plagiarism. *Perspect Clin Res* 2018;9(1):56–57.
19. Gasparyan AY, Nurmashv B, Seksenbayev B, Trukhachev VI, Kostyukova EI, Kitas GD. Plagiarism in the Context of Education and Evolving Detection Strategies. *J Korean Med Sci* 2017;32(8):1220-1227.

20. Zimba O, Gasparyan AY. Plagiarism detection and prevention: a primer for researchers. *Reumatologia* 2021;59(3):132–137.
21. Butler, D. Journals step up plagiarism policing. *Nature* 2010;(7303):167.
22. How to stop plagiarism. *Nature* 2012;481(7379):21-23.
23. Park S, Yang SH, Jung E, Kim YM, Baek HS, Koo Y-M. Similarity Analysis of Korean Medical Literature and Its Association with Efforts to Improve Research and Publication Ethics. *J Korean Med Sci* 2017;32(6):887–892.
24. Kalnins AU, Halm K, Castillo M. Screening for Self-Plagiarism in a Subspecialty-versus-General Imaging Journal Using iThenticate. *Am J Neuroradiol* 2015;36(6):1034–1038.
25. Wiwanitkit V. Simultaneous submission, duplicate publication, self-plagiarism and the proper management. *J Minim Access Surg* 2014;10(1):51.
26. Amos KA. The ethics of scholarly publishing: exploring differences in plagiarism and duplicate publication across nations. *J Med Libr Assoc* 2014;102(2):87–91.
27. Core practices. Available from: <https://publicationethics.org/core-practices> [Accessed March 12, 2022].
28. Kamali N, Talebi Bezmin Abadi A, Rahimi F. Plagiarism, Fake Peer-Review, and Duplication: Predominant Reasons Underlying Retractions of Iran-Affiliated Scientific Papers. *Sci Eng Ethics* 2020;26(6):3455–3463.
29. Wang T, Xing Q-R, Wang H, Chen W. Retracted Publications in the Biomedical Literature from Open Access Journals. *Sci Eng Ethics* 2019;25(3):855–868.
30. Stavale R, Ferreira GI, Galvão JAM, Zicker F, Novaes MRCG, Oliveira CM, Guilhem D. Research misconduct in health and life sciences research: A systematic review of retracted literature from Brazilian institutions. *PLoS One* 2019;14(4):e0214272.
31. Fanelli D. Why growing retractions are (mostly) a good sign. *PLoS Med* 2013;10(12):e1001563.
32. Simatupang MS, Peter R, Murniarti E, Male H, Tambunsaribu G. The Plagiarism Tendency During Covid-19 Pandemic. *Turk J Comput Math Educ* 2021;12(14):4600–4607.
33. Gregory JL. COVID-19 Elevating the Problem of Plagiarism: The Implied Social Contract of Academic Integrity. *Delta Kappa Gamma Bulletin* 2020;87(1):18–23.
34. Marusic A, Wager E, Utrobicic A, Rothstein HR, Sambunjak D. Interventions to prevent misconduct and promote integrity in research and publication. *Cochrane Database Syst Rev* 2016;4(4):MR000038.
35. Aggarwal R, Gupte N, Kass N, Taylor H, Ali J, Bhan A, et al. A comparison of online versus on-site training in health research methodology: a randomized study. *BMC Med Educ* 2011;11:37.
36. Mahmoud MA, Mahfoud ZR, Ho M-J, Shatzer J. Faculty perceptions of student plagiarism and interventions to tackle it: a multiphase mixed-methods study in Qatar. *BMC Med Educ* 2020;20:315.
37. Debnath J, Cariappa MP. Wishing away Plagiarism in Scientific Publications! Will it work? A situational analysis of Plagiarism policy of journals in PubMed. *Med J Armed Forces India* 2018; 74(2):143-147.
38. Walker J. Student plagiarism in universities: What are we doing about it? *High Educ Res Dev* 1998;17(1):89-106.
39. Mozgovoy M, Kakkonen T, Cosma G. Automatic Student Plagiarism Detection: Future Perspectives. *J Educ Comput Res* 2010;43(4):511–531.
40. Velásquez JD, Covacevich Y, Molina F, Marrese-Taylor E, Rodríguez C, Bravo-Marquez F. DOCODE 3.0 (DOcument COpy DEtector): A system for plagiarism detection by applying an information fusion process from multiple documental data sources. *Inf Fusion* 2016;27:64–75.
41. Foltýnek T, Meuschke N, Gipp B. Academic Plagiarism Detection: A Systematic Literature Review. *ACM Comput Surv* 2019;52(6):112:1-112:42.

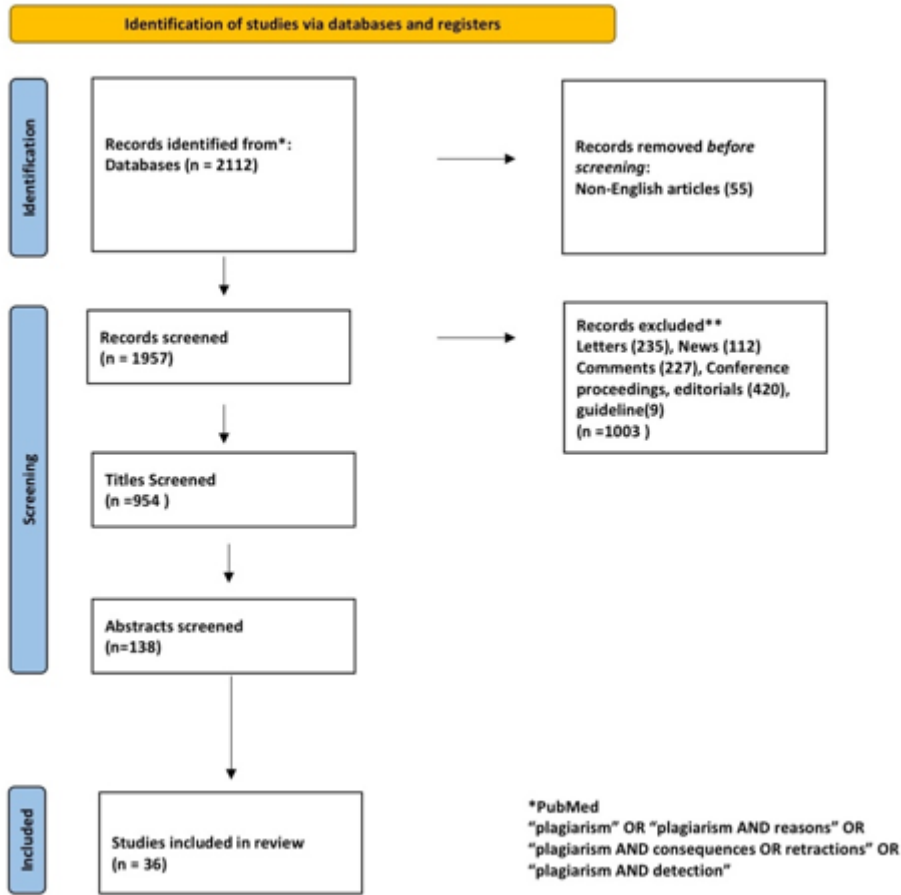


Figure 1. Methodology

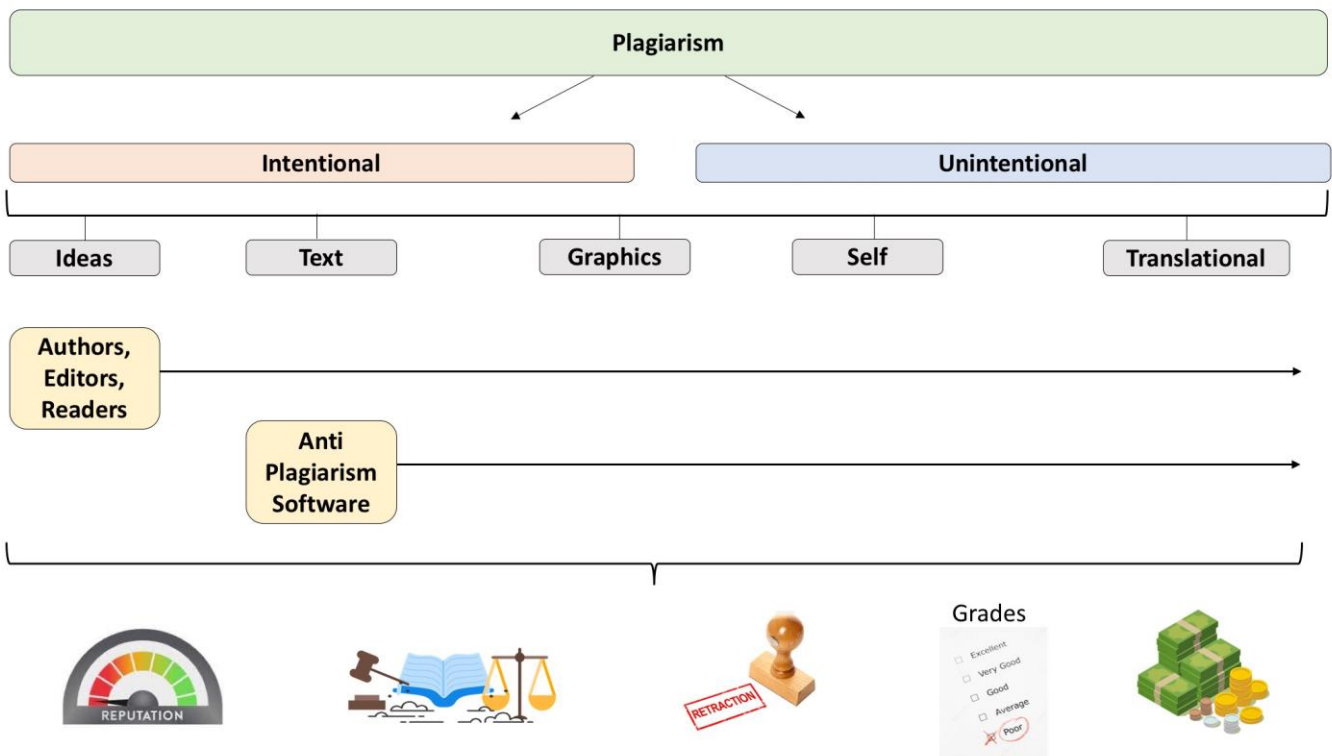


Figure 2. Types, Detection, and Consequences of Plagiarism

Table 1: Different approaches for classification of Plagiarism

Types	Sham	Illicit	Verbatim Copying	Technical tricks to deceive detection systems	Inaccurate Referencing	Tough	Ghostwriting	Recycling	Purloining
Example: "Betty Botter bought some butter, but she said that butter is bitter"	Betty Botter bought some bitter butter(x)	Betty Botter bought some bitter butter*	Betty Botter bought some butter, but she said that butter is bitter	Betty B0tter b0ught s0me butter, but she said that butter is bitter#	Betty Botter bought some butter, but she said that butter is bitter(y)\$	Alexa bought some butter which was salty in taste Or Betty Botter butyrum aliquod emit, sed dixit butyrum amarum esse ^	<i>Betty Botter bought some butter, but she said that butter is bitter&</i>	Assignment 1: Betty Botter bought some butter, but she said that butter is bitter Assignment 2: Betty Botter bought some butter, but she said that butter is bitter	Student1 : Betty Botter bought some butter, but she said that butter is bitter Student2 : Betty Botter bought some butter, but she said that butter is bitter~
Walker's Typology (38) ^{^^}									
Mozgovoy et al. (39) ^{^^}									
Velasquez et al. (40) ^{^^}									
Foltyniek et al. (41) ^{^^}	Semantics preserving	Semantics preserving	Character preserving	Syntax preserving		Idea/ Semantics preserving	Ghostwriting		
*No reference mentioned, # using 0 instead of o, \$ fake/false references or expired link, ^ translated into Latin, & Written by third person, ~ written without consent.									
^{^^} Highlighted boxes indicate types included in that classification									

Table 2: Examples of software for detecting plagiarism

Software	Reference database	Method	Report	Useful for	Free or Paid
iThenticate http://www.ithenticate.com/	Journal articles, conference proceedings, databases, millions of webpages	Upload/cut paste	Similarity scores in %	Individuals/ organizations	Paid
Turnitin Feedback Studio https://www.turnitin.com	Journal articles, conference proceedings, databases, millions of webpages	Upload/cut paste for a class room setting	Similarity scores in %	Organizations	Paid
Grammarly https://www.grammarly.com/plagiarism-checker	Billions of webpages	Paste text	Report mention if plagiarism issues present or no	Individuals/ organizations	Free
HelioBlast https://helioblast.heliotext.com/	MEDLINE titles and abstracts	Paste text, limit of 1000 words	Scores, abstracts that are similar	Individuals	Free

ПЛАГИАТ ЖӘНЕ ОНЫҢ САЛДАРЫ: ЖАУАПТЫ ҒЫЛЫМИ ЖАЗУ НҰСҚАУЛЫҒЫ**Түйіндеме**

Кіріспе: Плагиат, қарапайым сөзбен айтқанда, идеяларды немесе мәтінді ұрлауды білдіреді, бұл жиі айтылатын маңызды ғылыми қылық, бірақ оның ресми оқу бағдарламасында болмауы таңқаларлық. Студенттер мен жас зерттеушілер бұл қатені әртүрлі себептермен әдейі немесе байқаусызда жасайды. Мақсаты: осы шолуда біз COVID-19 пандемиясындағы оның мәртебесіне ерекше назар аударып, плагиаттың шығу тегінен оның әсеріне дейінгі нақты тұжырымдамасын талқылауға ұмтыламыз. Айқын тұжырымдау авторларға бас тартулар мен медицина этикасын бұзуды болдырмау арқылы уақыт пен күшін, идеяны біртума зерттеулерге инвестициялауға көмектеседі.

Материалдар мен әдістер. Ғылыми мақалаларды іздеу MEDLINE-да келесі түрдегі сөздер бойынша жүргізілді: "Плагиат" немесе "Плагиат және себептері" немесе "Плагиат және салдары немесе теріске шығару" немесе "Плагиат және анықтау".

Нәтижелер: алынған 2112 мақаланың 36-сы шолу үшін таңдалды. Бұл бұзушылықтың негізгі себептері шектеулі мерзімде жариялау қажеттілігі, сондай-ақ ғылыми жұмыстарды жазуға дайындықтың болмауы болды. Плагиаттың байқалған формаларына қасақана және байқаусызда плагиат, идеяларды ұрлау, сөзбе-сөз көшіру, графика, өзін-өзі плагиат және аударма плагиаты жатады. Плагиатты анықтау үшін iThenticate, Turnitin Feedback Studio, Grammarly және т.б. сияқты әртүрлі бағдарламаларды пайдалануға болады, сонымен қатар авторлардың, рецензенттердің және редакторлардың мұқият қарауы бұл қауіпті анықтап, ғылымдағы өзіндік ерекшелікті сақтауға көмектеседі. Оның салдары ауыр болуы мүмкін: жала жабудан бастап авторларға қарсы ақша талап етуге дейін. Ғылыми хат бойынша интербелсенді семинарлар өткізу бұқаралық білім беру деңгейінде шығармашылық ойлауды ынталандырумен қатар студенттер мен жас зерттеушілер арасында заңсыз ғылыми плагиаттың алдын алудың кілті болып табылады.

Қорытынды: Плагиат - бұл студенттер және жас зерттеушілермен талқылануы керек маңызды ғылыми қылық және оны алдын-алу медицина ғылымы мен академиялық ортаны дамытудың кілті болып табылады.

Түйін сөздер: COVID-19, оқу жоспары, жоғары медицина білімі, теріс пайдалану, жариялау этикасы, студенттер

Дәйексөз үшін: Мехта П., Мукерджи С. Плагиат және оның салдары: жауапты ғылыми жазу нұсқаулығы. Медициналық гипотеза мен этиканың Орта Азиялық журналы 2022;3(1):52-62. <https://doi.org/10.47316/cajmhe.2022.3.1.05>

ПЛАГИАТ И ЕГО ПОСЛЕДСТВИЯ: РУКОВОДСТВО ПО ОТВЕТСТВЕННОМУ НАУЧНОМУ ПИСЬМУ**Резюме**

Введение: Плагиат, простыми словами означающий кражу идей или текста, является серьезным научным проступком, о котором часто говорят, однако примечательно его явное отсутствие в формальной учебной программе. Студенты и молодые исследователи намеренно или непреднамеренно совершают эту ошибку по разным причинам.

Цель: в этом обзоре мы стремимся обсудить четкую концепцию плагиата от его происхождения до его последствий, уделяя особое внимание его статусу в условиях пандемии COVID-19. Ясная концептуализация поможет молодым авторам инвестировать время и силы, идеи в оригинальные исследования, избегая отказов и нарушений медицинской этики.

Материалы и методы. Поиск научных статей был выполнен в MEDLINE по следующим ключевым словам: «Плагиат» или «Плагиат и причины» или «Плагиат и последствия или опровержения» или «Плагиат и обнаружение».

Результаты: Из 2112 полученных статей для обзора было отобрано 36. Основными причинами рассматриваемого нарушения были необходимость публикации в ограниченные сроки, а также отсутствие подготовки для написания научных работ. Наблюдаемые формы плагиата включают преднамеренный и непреднамеренный плагиат, кражу идей, дословное копирование, графику, самоплагиат и переводческий плагиат. Для обнаружения плагиата доступно использование различных программ, таких как iThenticate, Turnitin Feedback Studio, Grammarly и т. д., а также тщательное рассмотрение авторами, рецензентами и редакторами может обнаружить эту угрозу и помочь сохранить оригинальность в науке. Последствия могут быть серьезными: от клеветы до

денежных исков против авторов. Проведение интерактивных семинаров по научному письму наряду с поощрением творческого мышления на уровне массового образования является ключом к предотвращению неправомерного научного плагиата среди студентов и молодых исследователей. Вывод: Плагиат – это серьезный научный проступок, который необходимо обсуждать со студентами и молодыми исследователями, и его предотвращение является ключом к развитию медицинской науки и академических кругов.

Ключевые слова: COVID-19, учебная программа, высшее медицинское образование, злоупотребление служебным положением, публикационная этика, студенты

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