Authors and Editors of Scholarly Journals Should be Aware of Plagiarism and Its Consequences

Plagiarism can be defined as the state of reusing or presenting one’s previously published original work or source or idea without properly referring the previous original work or source by stating one’s claim.1,2 Plagiarism can be classified into 2 main groups, text plagiarism and idea plagiarism.1 Text plagiarism can be considered in a wide spectrum as shown in Table 1 and includes copying images, tables, pictures, and table captions. On the other hand, idea plagiarism is the most serious type of idea quote, also being the most difficult to detect on submission or after publication of a paper.

Plagiarism is probably subject to ideas and issues for a couple of millenniums, but scholarly, the accusation of the first paper for plagiarism occurred in 1979. Since then, the number of papers with detected plagiarism is growing, and each day, it becomes more difficult for the journals to deal with the problem.4,5 Balkan Medical Journal, given a start to its life on May 1979 and extending until today as an institutionalized and serious international general medicine journal, directs its plagiarism policies in line with the recommendations and guidelines of Committee on Publication Ethics (COPE) and International Committee of Medical Journal Editors (ICMJE).6-11 However, sometimes it can still be too challenging to deal with the serious problem of plagiarism.

Before the widespread use of the internet, it was much more problematic to detect possible similarities in papers. Nowadays, plagiarism can be detected more easily with the help of different online similarity detection software tools.12 However, as solutions evolve, so do the problems encountered. Before the internet, the number of journals, the number of submitted manuscripts, and the number of published articles were too low when compared today.4 Now, there is a drastic increase in both the number of submitted articles and the number of plagiarisms, due largely to the number of published articles which is a need for young researchers for employment and academic promotion policies of those in the profession. Other reasons for the increase in plagiarism can be listed as below:3,5,13:

- Lack of knowledge about definition of plagiarism, mostly among inexperienced and sometimes experienced researchers.
- Lack of knowledge about severity of plagiarism, mostly among inexperienced and sometimes experienced researchers.
- Lack of language skill, especially in researchers from countries who are not native speakers of English.
- Choosing the easiest way for conceiving a professional paper.
- Being opposed to the condition of plagiarism.
- Lack of enough time to give the results of an important research.
- Habit of plagiarizing.
- Lack of plagiarism policies of scientific journals.
- Lack of penalties in the policies of scientific journals against plagiarism.
- Relatively high cost of main plagiarism detection tools.

As mentioned above, there are different tools for journal editors to detect plagiarism. Some of those tools are free of charge, but the mostly used and highly preferred tools can reach high costs depending on the number of submitted papers12 (Table 2). iThenticate is a highly preferred software for the detection of text similarity in most of the important international journals and also Balkan Medical Journal. Indeed, those tools are detecting the similarity index of the papers and not directly investigating plagiarism. Those tools cannot detect plagiarism about ideas, or they cannot detect duplicate usage of figures or tables. So, simply those tools can detect only similarity of words, sentences, phrases, or paragraphs, and they should rather be named as similarity detection tools, and not tools for detection of plagiarism.1 In this situation, journal editors have a very important task to determine whether relative high similarity rate of a paper is really a cause of plagiarism or not.

In a study by Higgins et al,14 400 manuscripts submitted in a period of 12 months were retrospectively evaluated concerning the similarity rates of the papers. In this study, a paper is accepted as plagiarized, if 80% of the words in a sentence and/or 80% of the words in each paragraph were similar to a previously published paper. Methods section was not included in the similarity index, and manual curation was applied to each paper by the editor. As a result, 66 manuscripts were found to contain plagiarized statements with a mean iThenticate score of 25.8%, and of these 66 papers, 55 were from countries where English was not the official language. Fifty-four manuscripts were rejected without review process, and three after review. The striking point is that 37 papers of those 57 rejected papers were later published in a different journal with almost similar text.14 This shows that well-constructed and implemented policies against plagiarism are of great importance for all academic journals. In this regard, the
Approximately 80% of those submissions are subject to editorial rejection. In the standard operation of Balkan Medical Journal, the plagiarism rate of each paper is determined via the software iThen. Balkan Medical Journal receives over 1800 submissions per year.

Data on Turkey are very limited. In a study conducted by Toprak,

600 master’s and doctoral theses written between 2007 and 2015 in the field of educational sciences were examined in terms of originality and plagiarism parameters using the Turnitin plagiarism program. The average similarity score of the theses was determined as 28.7%, which is well above the 15% threshold.

Balkan Medical Journal follows the recommendations and guidelines of COPE and ICMJE. After submission and before publication, a paper must have a similarity index below 20%. If not, during the review process, the authors are asked to lower the similarity index of their paper before last decision for the manuscript. It is not always available to detect “idea plagiarism” before publication, and very rarely, retraction procedures are applied to published articles with definite plagiarized idea and material. If a paper is suspected of plagiarism or if plagiarized material is detected in a paper, all correspondence between author, editor, and publisher should be documented and stored for later reference.

Although the links of COPE and ICMJE are given in the website of our journal and although it is clearly stated that Balkan Medical Journal is following the recommendations and guidelines of COPE and ICMJE, it is not rational to wait for all authors to go to the link and read all guidelines and recommendations. So, it seems that, for all journals, and also for Balkan Medical Journal, it is essential to write all plagiarism policies of the journal, including the penalties against plagiarism, clearly and precisely. This can lead authors to read all policies about plagiarism on submission and at least to be aware of the definition and condition of what plagiarism is. Of course, it is difficult to overcome this problem only with the plagiarism policies of scientific journals. In addition, the fact that many journals do not have a clear and transparent policy on plagiarism further complicates the situation. For this reason, institutions and organizations should provide training on this subject at regular

### TABLE 1. Brief Descriptions of Several Types of Text Plagiarism

| Type of Text Plagiarism       | Definition of the Entity                                                                 |
|-------------------------------|------------------------------------------------------------------------------------------|
| Text recycling                | Also called self-plagiarism and duplicate submission. The author(s) copy the entire text or part of a text or figure(s) or table(s) from previous own publication without copyright agreement or without proper citation. |
| Word plagiarism               | Author(s) copy more than 6 consecutive words of a sentence or figure legend, or more than 80% of a sentence, or more than 80% of a paragraph. |
| Translational self-plagiarism | The author(s) translate some part(s) or entire own article from another language without acknowledgment or proper citation. |
| Translational plagiarism      | The author(s) translate some part(s) or entire article of different author(s) from another language without acknowledgment or proper citation. |
| Guest authorship             | Usually, senior authors are included in the study with respect to the author or in the hope to increase the possibility of publication of the paper. |
| Copy entire text             | The author(s) copy the entire text and figure(s) and/or table(s) from a previous publication without copyright agreement, acknowledgment, or without proper citation. |

### TABLE 2. Several Examples of Similarity Detection Tools and Their Web Addresses

| Software Name           | Website                                      |
|-------------------------|----------------------------------------------|
| iThenticate              | https://www.ithenticate.com/                 |
| The CrossCheck Portal   | https://crosscheck.ieee.org/crosscheck/      |
| Turnitin                | https://www.turnitin.com/                    |
| Grammarly               | https://www.grammarly.com/                   |
| Ouriginal                | https://www.ouriginal.com/                   |
| Dupli Checker           | https://www.duplchecker.com/                |
| PaperRater              | https://www.paperrater.com/                  |
| PLAGIARISM              | http://plagiarisma.net/                      |

### TABLE 3. Sources for Ethical Training on Plagiarism

| Name                                    | Source       | URL                                                                 |
|-----------------------------------------|--------------|----------------------------------------------------------------------|
| International Standards for Editors and Authors | COPE         | https://publicationethics.org/resources/resources-and-further-reading/international-standards-editors-and-authors |
| Defining the Role of Authors and Contributors | ICMJE        | http://www.icmje.org/recommendations/browse/roles-and-responsibilities/defining-the-role-of-authors-and-contributors.html |
| Service Avoiding Plagiarism, Self-Plagiarism, and Other Questionable Writing Practices: A Guide to Ethical Writing | ORI          | https://ori.hhs.gov/sites/default/files/plagiarism.pdf               |
| International Bioethics Training        | NIH          | https://www.fic.nih.gov/Programs/Pages/bioethics.aspx               |

ORI, The Office of Research Integrity; NIH, National Institutes of Health; COPE, Committee on Publication Ethics; ICMJE, International Committee of Medical Journal Editors.
intervals (Table 3 for online ethical training on plagiarism), and more importantly, deterrent sanctions should be applied by institutions in case of ethical violation (plagiarism).

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