Investigating the root causes of duplicate publication in research articles

Payman Adibi, Maryam Kianpour¹, Shahin Shirani²
Integrative Functional Gastroenterology Research Center, ¹Nursing and Midwifery Care Research Center, School of Nursing and Midwifery, ²Cardiovascular Research Center, Isfahan University of Medical Sciences, Isfahan, Iran

ABSTRACT
Duplicate publication is the republication of an article in which a lot of important parts overlap with the published copy. This issue is nearly at the top of the list of subjects, which medical journal editors discuss. This study was conducted with the purpose of investigating the publication patterns and determining its root causes in research articles in the Isfahan University of Medical Science and to find a solution to prevent it. In a cross-sectional study, all the discovered cases of duplicate publication, which were referred to the ethics committee of the Isfahan University of Medical Science during 2005–2008 were selected to be investigated through a descriptive method. After confirmation about the case of a duplicate publication, the requisite investigation was conducted through interviews and review of the correspondence and documentaries, and then, a radical line was charted. After investigating the cases and classifying the radical causes and incidents, categorization and definition of duplicate publication are presented. Eight out of nine republished articles belonged to the first category of Baily’s index (copy publication) and one was in the third category (minimum publishable unit: Salami slicing). The results of the present article indicate that, the scientific community of the country is not yet familiar with the professional principles of scientific and research affairs. According to the results of this investigation, it is recommended to take official action against duplicate publication cases, violation of copyright, and also to have strict instructions against this unethical practice.

Key words: Copy publishing, scientific misconduct, overlap publication, research manuscripts

INTRODUCTION
Publication and distribution of a scientific paper is the result of several months of planning and conducting a project. In a scientific attempt, which is followed by an intensive interest, the task should be done honestly, correctly, and purposefully, and the results should be reported properly and without any bias. Although there may be some deviations known as scientific misconduct resulting from ignoring some issues intentionally or nonintentionally. Several types of scientific misconduct are recognized, which need special consideration. These cases usually include fabrication, falsification, plagiarism, cyber plagiarism, self-plagiarism (to use the authors’ own research sources in the past and to have duplicate publication).

Duplicate publication is one of the most frequent concerns of editors. This may vary from parting the information to minimizing the publishable units. Duplicate publication is publishing of an article in which a lot of important parts overlap with a published copy. Other terms used in this regard are dual, divided, republication, fragmented, prior, repetitive, and salami slicing.
In duplicate publications, some repetitive topics are added to the existing texts resulting in an inappropriate effect on our analysis, wasting the time of the editors, reviewers, scientists, and readers. It also wastes the journals’ sources and violates the copyright law.\textsuperscript{[12]} There is not a clear definition for duplicate publication of scientific articles. It can be in different types, but it is clearly unethical to publish asingle content in several journals with the purpose of receiving benefit, personal interest, and cheating and declaring an output as an article. In addition, it should be noted that a research misconduct would be punishable by disciplinary actions in some cases. A wrong decision or judgment about a suspicious action or accusing the scientific society members could be hurtful and illogical; therefore, determining the definitions in this field for the decision makers is of considerable importance. In this study with the purpose of reforming the process, an attempt has been made to clarify the different types of duplicate publication with respect to its underlying background and the causes, at the Isfahan University of Medical Sciences.

**MATERIALS AND METHODS**

This descriptive study investigated causes of duplicate publication in all the discovered cases during 2005–2008, which were referred to ethics committee of medical sciences researches in Isfahan University of Medical Sciences through university office for scientific investigation, editorial teams of different university journals, distinguished staff, and scattered reports by other official and nonofficial sources in Isfahan University of Medical Sciences.

After confirmation of a duplicate publication case by experts in the ethics committee of medical sciences research of Isfahan University of Medical Sciences, the investigation was done through specific interviews and reviewing documents and correspondences, and the related causes were identified for issuing a verdict after having enough evidence.

According to the definition given by the ethics committee, radical causes are the recognizable background causes, which can possibly be controlled and can be prevented by effective advice. In the present study, there has been a radical analysis during the four steps of gathering the data, drawing charts for radical causes, finding the main cause, and some recommendations to follow.\textsuperscript{[13]}

The different types of duplicate publication are categorized in the present study as follows\textsuperscript{[14]}:

- Baily (first category) or copy publishing of an article in two different journals. There may be changing the name of authors. In this category, subjects, findings, texts, and languages are the same.
- Publishing the least publishable unit of research in each article with the purpose of increasing number of articles related to one study, which is also referred to as salami slicing. In this category, the subjects are the same, findings and texts are different, and language of the two articles may be the same or different.
- Republication of an article along with adding some more subjects, methods, or findings of the main article in order to reform the content or upgrade the level of publication, or publishing separate results of each center in a multicenter study, which is also known as meat extender in this category. The subjects and findings are different but texts are the same and languages of the two articles are the same or different.
- Publication of some parts of the main study such as separate publication of analysis results of subgroups in one study. In this category, subjects and findings are different but texts are the same, and languages of the two articles are the same or different.
- Real duplicate publication or copy publishing with different languages, which is also known as translation publishing. In this category, the subjects, findings, and the texts are the same but languages are different. Verdicts issued by the ethics committee of Medical Sciences researches, about duplicate publication areas follows:
  - Publishing an article with the same content in two journals with the same language (duplicate publication) is considered as a violation of law.
  - Publishing an article with the same content in two journals with different languages is permitted.
  - Publishing an article after its representation in a congress is permitted only if place of presentation is mentioned. Also presenting very important articles at international congresses is permitted even if it has been presented previously in a student or a local congress.

After reviewing the cases and categorizing the incidents that occurred, an attempt has been made to discover the causes of duplicate publication and the ways to prevent it.

**RESULTS**

During 2005–2008, 11 cases of republication were referred to the ethics committee of research in Isfahan University of Medical Sciences, of which nine cases were duplicate publication and two were related to presentations in congresses. Out of nine duplicate publications, eight were published twice and one was published three times. The minimum number of writers in the main articles and duplicate publication was one and the maximum number was seven authors.

Results of radical analysis of the nine cases are shown in Table 1. It can be observed that only in two cases, the author had intentionally published a duplicate.

Out of the 16 journals publishing the above articles, only five journals had an impact factor; nine were ISI indexed journals; 10 were foreign and six were domestic journals.

Out of the 16 duplicate publication articles, seven were in English and two were in Persian. Eight of the duplicate
publications were copy publishing (88.9%) and one article was salami slicing.

**DISCUSSION**

Republishing of one article in a single form in two journals is an unethical action. The present study shows that it is not easy to introduce some articles as duplicate or multiple publications, or prove the principal author’s action as immoral. It also is not easy to prove whether it is a case of negligence or a fault (an intentional action).

Unawareness of this immoral action, and therefore, changing the judgments about duplicate publication from ethical point of view is a no able issue. Researchers in Iran are not yet familiar with the professional principles of scientific affairs, and most of the authors do not know which cases are called duplicate publication. The present study showed that duplicate publication is not intentionally done, although ignorance does not absolve the authors.\[15\]

Domestic journals have a traditional publication managing system, which is not only a slow system but also it does not answer to the corresponding author and show clear circulation of the delivered articles.

In such circumstances, the authors feel that they have the right to submit their articles to several journals at the same time or after a short delay. Although the publishers of journals are aware of this situation, they are unable to reform it as there is no instruction about this issue in the authors’ help section of most of the journals. There are still similar circumstances in some domestic and even in some established international journals. Also delayed editorial team decision, no reply to author’s correspondences, and nonexistence of electronic follow-up system are some other defects of the existing system. Therefore, there is no standard or comprehensive and efficient process to detect the duplicate publication until the article readers report duplicate publication through their contact with the respective authors.

| Table 1: Root causes of republication of articles in Isfahan University of Medical Sciences |
|---|---|---|---|---|---|---|---|
| Case | Radical cause of republication of articles | IF in first journal | IF in the second journal | IF in the third journal | Number of first article writers | Number of second article writers | Number of third article writers | Writers’ names order |
| | | | | | | | | |
| 1 | Duplicate article by the author’s assistant without informing the corresponding author | 0 | 1.553 | - | 2 | 3 | - | Increased |
| | Not observing submission rules of the journal office | | | | | | | |
| 2 | Authors’ unawareness of immoral of duplicate publication | 0 | 0 | - | 5 | 6 | - | Increased |
| | Editorial team’s act of publishing the article without informing the authors | | | | | | | |
| 3 | No journal reply to the corresponding author’s correspondences | 0 | 0 | - | 2 | 2 | - | The same |
| | No coordination of the journal to deliver the prepublished copy to the corresponding author and not informing him/her about the ongoing progress | | | | | | | |
| 4 | No reply of the journal to the corresponding author’s correspondences | 0 | 0 | 0.329 | 3 | 3 | 3 | The same |
| | No coordination of the journal to deliver the prepublished copy to the corresponding author and informing him/her about the ongoing progress | | | | | | | |
| 5 | Intentional submission of the article to another journal by any of the authors without informing other authors or lack of the second journal checking concerning the resubmission of the article | 0 | 0 | - | 5 | 4 | - | Different |
| | | | | | | | | |
| 6 | No journal reply to the corresponding author’s correspondences | 0 | 2.099 | - | 7 | 7 | - | The same |
| | Resubmission of the article by its corresponding author because of lack of the first journal reply to the correspondences | | | | | | | | |
| 7 | Intentional submission of the article to other journals with the same materials and methods but different results, and consequently, different discussion | 0.499 | 1.21 | - | 6 | 6 | - | The same |
| | | | | | | | | |
| 8 | Intentional publication of the article by the editorial team without informing the authors | 0 | 0 | - | 1 | 1 | - | The same |
| | | | | | | | | |
| 9 | Authors’ unawareness of immoral of duplicate submission of an article | 0 | 0 | - | 7 | 7 | - | The same |

\(\text{IF} = \text{Impact factor}\)
Nowadays, most of the editors scan the papers carefully and ask the authors for the permission of republication before starting this process as it can be considered as a violation of copyright.[15] Most of the standard journal publishers ask the researchers to confirm the authenticity of their study in a certain form with respect to the article’s intellectual property. By doing so after article submission, the authors guarantee that they would not send the article to other journals for publication. In addition, downloading the electronic copyright form of the article for the second time for any reason after publication from the website of the related journal by the author is considered as a copyright violation. Any action against the rule is then not only considered immoral and illegal but tarnishes the second article’s legal validity as well. Some of the journals do not publish articles with topics that are, to any extent, reported to have been submitted elsewhere.[15] In these cases, the author should inform the editorial team about all the articles and topics that may resemble the related article in a letter. This letter may include previous publications of the related article or its concurrent submission to other publishing houses for publication.[10]

According to the results of the present study, it is recommended to educate the faculty members about the unethical practice of multiple submissions of a single article to several journals for publication, the interaction with reviewing, related correspondences, and publication with the journal editorial team, and also informing the faculty members about the verdicts of the ethics committee of the Medical Sciences University. These instructions should be clear and include guidelines concerning the cases of journal publishers’ delayed response to the authors as well as the authors’ delayed response to the journal publishers, not receiving the final decision of the publishers regarding the acceptance of the article, reviewers’ changes made by the journal office, the high number of correspondences, and so on. Also for Iranian journals, the editorial team can fix a deadline to review the articles. The journal website should also include clear information about the reviewing process. Through a unique process of interactions of the journal publishers with the authors, submission of one article to several journals is less likely to occur.

Writers of this article offer the following suggestions for the prevention of duplication publication:
• Be honest in submission of papers and the new information mentioned in them
• Observe the journal’s rules and regulations for scientific papers acceptance and publication
• Give the priority to publishing a classical, detailed, and comprehensive article instead of rendering results and dissecting the article in minimal publishable form.

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