

Duplicate or Redundant Publication: Can We Afford It?

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REVISTA ESPAÑOLA DE CARDIOLOGÍA recently published the full text of the latest recommendations of the International Committee of Medical Journal Editors (ICMJE).^{1,2} One of the aspects of editorial ethics covered by these recommendations is redundant or duplicate publication. This journal is committed to a strict policy on this type of publication. Redundant or duplicate publication is usually considered within the scope of editorial ethics, bad academic conduct, or even within the scope of scientific fraud.³⁻¹⁰ Nevertheless, we appreciate that these problems often arise because authors do not have a detailed knowledge of the guidelines or do not know what is acceptable for publication of scientific manuscripts.² We therefore think that now would be a good time to summarize the most relevant and up-to-date information on the topic for all investigators and, in particular, for those interested in publishing studies our journal. We will try to explain the reasoning behind these guidelines, why it is important to follow the recommendations, and our editorial policy regarding redundancy and duplicity.^{2,11}

Duplicate Publication

The Ingelfinger rule, in which a manuscript can only be considered for publication provided it has not been published previously, was first introduced in 1969.^{12,13} The term duplicate or redundant publication was defined by the ICMJE as the publication of an article whose content was “substantially” similar to that of a previously published article.¹ To avoid ambiguity, many journals clarified the meaning of “substantially.”^{1,6-10} Specifically, the editors of cardiothoracic journals define a publication as redundant if 6 of the criteria given in Table 1 are met.¹⁴ Some recent studies have found, however, that only half the authors have

read any of these recommendations.¹⁵

Strictly speaking, duplicate publication means precisely that, duplicate publication.¹⁻¹⁰ Duplication can be full or partial, in electronic format or hardcopy, in the same language or in a different language,¹⁶ include new data, or simply reproduce the results of the original publication without adding any information. Articles can be published in journals that may or may not be indexed in *Index Medicus* or in supplements. In short, this practice is a form of plagiarizing oneself and, as we shall see, it can have important implications.

According to broad consensus, previous publication of an abstract for a scientific congress does not constitute duplicate publication.¹⁻¹⁰ Even reproduction by journalists or specialist nonmedical staff of some of the data or figures from a webcast is usually considered acceptable by most editors.^{7,17} In these cases, the material will not have been subject to peer review, which is usually considered the defining feature of a scientific publication.¹⁻¹⁰ It is also recognized that the problem covers wide-ranging possibilities with differing implications. For example, reproduction of similar information in several review articles cannot be considered equivalent to a “covert” duplicate publication of original scientific work that is of interest because the information provided is supposedly novel.

A different but closely related problem arises when partial publications are derived from a single study whose data were obtained during the same investigational project (salami publication or salami slicing).¹⁸ This topic has also been the source of controversy and has led to somewhat farcical situations, such as attempts to define the “minimum publishable

TABLE 1. Criteria for Redundant Publication*

- a) Similar hypothesis
- b) Similar sample size
- c) Identical or almost identical methodology
- d) Similar results
- e) At least 1 author in common in both manuscripts
- f) No new information or new information of little relevance

*Adapted from the Editors of Cardiothoracic Journals.¹⁴

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TABLE 2. Different Types of Duplicate Article*

1. Same sample, identical results
 - a) Reproduction of a previous article (20%) (article normally copied)
 - b) Different original articles combined to form an additional article (16%) (generally in a sponsored supplement)
2. Same sample but different results (23%) (fragmentation of scientific information)
3. Different samples with identical results
 - a) Larger sample (11%) (definitive article after a preliminary article)
 - b) Smaller sample (11%) (breakdown of data from an international study, translations)
4. Different samples and different results (19%) (confirmation of duplicity only demonstrable because of authors)

*Adapted from von Elm E, et al²⁰ (% of total duplicate articles published).

TABLE 3. Acceptable Secondary Publication*

1. Approval by the editors of the two journals
2. Respect for the priority of the primary publication (at least 1 week)
3. Different readership from the primary publication
4. Faithful reproduction of the primary version
5. Clear cross-referencing to the primary publication
6. Permission for secondary publication free of charge

*Adapted from ICMJE¹ and HEART (Heart Editors Action Round Table).²³

unit.”^{7,19} Sometimes, multiple publications derived from a single study are acceptable, for example, when investigators publish relevant well-differentiated findings from large clinical or epidemiological studies that were not presented with the main findings. Such practice implicitly recognizes that the growing pressure to limit the total number of words in a manuscript may justify the publication of additional findings in a different article. Nevertheless, for publication of different manuscripts based on results from the same database to be “legitimate,” it should be clear to the readers that the publications are related through cross-referencing.

Biomedical journals widely agree that authors should clarify doubts directly with the editors. The editors will have the final word on whether the results are duplicated or not, and to what extent, and are who will take the appropriate decision. As always, the best option, when faced with any problem of editorial ethics, is to openly declare any potential conflict (disclosure).¹⁻¹⁰

In an interesting study, von Elm et al²⁰ analyzed the different types of duplicate publication identified in a total of 141 systematic reviews (1131 main articles and 103 duplicate articles). Different patterns of duplicate publication were found (Table 2). Of the duplicate articles, 33% were sponsored by the pharmaceutical

TABLE 4. Problems Caused by Duplicate Publication*

1. Use of editorial resources
 - a) Time used in assessment and identification: reviewers and editors
 - b) Limited number of pages
 - c) Prevention of publication of other truly “original” articles
 - d) Publication of declarations of “duplicate article” or “retraction”
2. Deception of readers
 - a) Limited time for reading
 - b) Study of something presented as original
 - c) Déjà vu phenomenon
3. Scientific ethics
 - a) Signed declaration that the article has not been published previously
 - b) Aspects concerning copyright
4. Qualitative distortion of scientific evidence
 - a) Information repeated. Perception of greater scientific evidence
5. Quantitative distortion of scientific evidence
 - a) Problems in metaanalysis
6. Fraudulent academic promotion at the expense of other investigators

*Taken from ICMJE,¹ Abraham,⁶ and Tobin.⁹

industry, 64% had different authors to the original article, and 63% were “covert” duplicate articles (that is, with no cross-referencing). The duplicate articles were published soon after the original article (median 1 year) in journals with a similar impact factor and, in addition, the number of citations received was similar for both the original and duplicate article.²⁰ Less information is available for journals about surgery, but it has been suggested that 1 in 6 original articles could contain some sort of duplicity.²¹ Once again, the greatest cause for concern was that 73% of these publications related to surgical studies about surgery contained no cross references to the original article.

So, as discussed above, a duplicate publication can be acknowledged, with a clear cross-reference to the main article and with the full awareness and consent of the editors, or it can be a covert duplicate publication. An acknowledged duplicate publication is fully justified in certain situations—one of the examples most often mentioned is the translation into different languages of guidelines for clinical practice.^{1,22} Currently, most scientific publications can be readily accessed. However, at times, the editors of 2 journals with a different readership can agree to publish the same article. The HEART (Heart Editors Action Round Table) group of editors has listed the conditions when “secondary publication” can be considered appropriate (Table 3).^{1,23} Finally, duplicate publication can be covert or hidden without the knowledge of the editors and without a cross-reference to the original document. Such conduct is totally unaccept-

able in science.

Consequences of Duplicate Publication

Table 4 summarizes the main problems caused by duplicate publication.⁶⁻⁹ First, we note that editorial resources are finite. The total number of pages in a journal is limited; therefore a duplicate article may be published at the expense of another article that really deserved to be published. Each page of a journal costs money and, contrary to popular belief, publication of articles exclusively in electronic format only provides marginal savings.²⁴ Thus, when many interesting articles are rejected simply because of lack of space,²⁵ publication of a duplicate article is unacceptable. Moreover, the publishers need to invest more time and effort, and the work of reviewers and editors in particular is multiplied. Duplicate publication abuses the good faith of the readers, who normally have limited time for reading and may feel deceived when they find out that they have already read the article somewhere else, or that the results are not new but have been published in another journal.

The ethical implications for authors are also clear. Most prestigious scientific publications make authors sign a declaration such as "this manuscript has not been published elsewhere and has not been submitted to another journal."¹ Therefore, the authors attest that the manuscript does not infringe the criteria of duplicate publication. Furthermore, the current systems of sending manuscripts by e-mail allow authors to attach potentially related articles so that the value of the information provided can be analyzed in its context.

An important problem with duplicate publication, particularly if it is covert, is the influence it has on the quantitative assessment of the efficacy of different therapeutic interventions when metaanalysis techniques are used. Tramer et al²⁶ specifically analyzed the implications of covert duplicate publications on the assessment of therapeutic efficacy in a now classic study that focussed only on randomized trials. They showed that 17% of the studies included actually corresponded to covert duplicate publications, and that 28% of the results for patients appeared in duplicate. As might be expected, they also found that the studies with the most positive findings were the ones that were duplicated most often. The final analysis of all the trials led to an overestimate of the therapeutic effect by 28% in comparison with the analysis that included only original work. The inclusion of results from duplicate studies not only narrowed the confidence intervals (due to the artificial increase in the number of patients) but also, more worryingly, affected the calculation of the number needed to treat (because of the bias towards greater duplicate publication in the case of studies that showed greater efficacy).

The authors concluded that this problem is hard to solve despite the new electronic search systems, which, superficially, might make identification of duplicate manuscripts easier, and that errors in estimating clinical benefit could result from duplicate publications, with the ensuing clinical implications.

Motives, Attitudes, and Editorial Policy

Apart from an investigator's desire to flesh out his or her resumé, the total number of publications in a peer-reviewed journal is considered by many as the best way to attain academic recognition. Whether we like it or not, the old saying "publish or perish" remains a reality of academic life.^{6,9,27-28} Furthermore, in some situations, an artificially inflated publications list may be used skillfully to compete for resources and contest research grants or academic and university positions. Obviously, the number of publications is not the only factor, and it is not the only indicator of scientific productivity. Publishing just for the sake of it has no scientific merit.^{9,27-29} The ultimate aim of research is to advance knowledge. A better distinction between pushing back the frontiers of knowledge and scientific "productivity" could help eliminate some of the incentives for duplicate publication.²⁸ Likewise, the amount of money received for investigation does not predict the quality of research or the knowledge eventually generated. For better or worse, the pressure to publish still does not affect Spain as clearly as in many Anglo-Saxon countries, where scientific recognition not only has economic implications, but also opens the doors to positions of responsibility, influence, or simply power.^{27,28} In the most prestigious medical journals, duplicate publication is reported by the readers⁴ but may go undetected in more humble journals.²¹ Currently, however, modern electronic search systems and electronic databases make it much easier to uncover authors who submit duplicate articles.^{6,9} Authors should therefore remember that *REVISTA ESPAÑOLA DE CARDIOLOGÍA* is included in the most prestigious international databases and free full English texts are available in the electronic edition. "Duplicate publication" is so important that it is listed as one of the "publication types" in MEDLINE. Reviewers or editors are only unable to detect duplicate publication in the initial stages of the publication process when redundant articles are sent to different journals at the same time ("shotgunning"). Finally, the proposal to establish an independent, exhaustive, and open database to register all clinical trials from the start could help avoid these problems.^{30,31}

Editors and authors have different opinions on the measures that should be taken when a duplicate publication is detected. In a survey of both groups¹⁵ (99 selected editors and 99 selected authors), both editors and authors thought that authors should be informed of

the duplicity (100% vs 98%, respectively), that the other journal should be informed (93% vs 80%, respectively), and that a note of duplicate publication should be issued (79% vs 66%). However, editors thought that much more severe penalties should be imposed than authors, such as restrictions on future publications (68% vs 39%, respectively) and that the fraud should be reported to the author's institution (66% vs 42%, respectively).¹⁵ The recommendations of the ICMJE on this point are clear.¹ In practice, however, redundant publication is still considered a minor offense and, in fact, it is hard to find authors who admit feelings of guilt or shame.³²

The whole publication process for scientific articles is based on the credibility, trust, and presumed scientific honesty.^{1,2} If authors cannot be honest even about the originality of their research, can we really trust the authenticity of other aspects of their studies? Scientific journals are there for investigators to exchange novel information, which is used to lay the foundation for further progress. We therefore cannot allow the system to be questioned because of inappropriate conduct. As editors, we must ensure that this type of practice, which violates academic ethics and is unfair on honest authors, does not tarnish the hard-earned credibility of REVISTA ESPAÑOLA DE CARDIOLOGÍA.³³

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