

Prevalence of Plagiarism in Manuscript Submissions and Solutions

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OVERVIEW

Plagiarism represents a major concern in academia and scientific research (1, 2, 3). Despite this known concern few scientific journals routinely screen for originality in submitted manuscripts. Such challenges to originality have the potential to undermine the integrity of the research process. The primary purpose of this position stand is to highlight the prevalence of plagiarism that has been observed in manuscripts submitted for peer-review to the *International Journal of Exercise Science (IJES)*. We also sought to provide practical solutions that student authors and faculty mentors could use to avoid plagiarism in their future professional work.

Prevalence of Plagiarism in IJES

In December 2009, the *IJES* editorial board elected to prescreen all manuscripts for originality prior to assignment for peer-review. The purpose of this procedure was to ensure that *IJES* only published high quality, original works. Since the implementation of this new layer of the review process we have uncovered an unanticipated trend. Since December 2009, 46% of the manuscripts submitted to *IJES* have contained some form of plagiarism.

The breakdown is as follows:

- 30% of submitted manuscripts included plagiarism from a previous publication of the senior author.
- 16% of submitted manuscripts included plagiarism from another investigator's work and/or website.

The most common location of plagiarized statements was in the introduction and method sections. Only 3% of submitted manuscripts contained plagiarism in the discussion section.

When a manuscript was identified as plagiarized, the pre-review editor sends a notice of rejection to the authors. In this email communication, concerns regarding originality are raised and the authors are provided with a list of the top three sources that have been plagiarized. The email notification was concluded by extending the author's an invitation to complete a major revision (which ensured originality) and resubmit in the future.

In most instances, the pre-review editor assisted the student/professional authors with identifying and eliminating specific statements, which were plagiarized.

Recommendations for Student Authors

Plagiarism can be intentional or accidental; however, it does not matter what the cause was because both undermine the integrity of the research process. Many first time authors accidentally plagiarize someone else's work because they copy an exact sentence from another published manuscript rather than rewriting it into their own words. Below are some examples of this:

- **Published Statement:** Regular Exercise has a number of health benefits, which can lead an improved quality of life.
- **Plagiarized Version:** **Exercise** Training has a number of health benefits, leading to **improved quality of life**. (11 of 16 plagiarized words, 68.7% plagiarized)
- **Properly Rewritten:** It is well documented that regular physical activity can lower fasting cholesterol and glucose, which may reduce morbidity. (0 of 16 plagiarized words, 0% plagiarized).

The most effective way to avoid plagiarism is to avoid the temptation to initially copy statements from another published manuscript under the premise that you will simply revise them later on. While this may be an easy way to start writing a manuscript it can cause originality problems later on if you forget to make changes.

It is very important that you work closely with your faculty mentor to produce a high-quality, original manuscript that is worth publishing.

Recommendations for Faculty Mentors

In order to maintain the integrity of the research process, supervising (or senior)

faculty members should complete a critical review of all student manuscripts before they are submitted for peer-review. It is also very important for faculty to communicate the importance of avoiding plagiarism at all costs, with an emphasis on creating a document that is the student's own thoughts, but supported by the existing literature. Since, most major universities have a site license for software that can check originality (i.e. Turn-it-in.com, etc.), it is advisable to pre-screen student manuscripts to identify areas of concern before they are submitted for peer-review.

SUMMARY

Plagiarism remains a major concern that often goes unchecked during the peer-review process; the *International Journal of Exercise Science* takes this portion of the peer-review process very seriously. It is the hope of the editorial board that through these efforts, students will be able to generate original articles for not only *IJES*, but also for other journals in the field of exercise science.

REFERENCES

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