

Publication of negative results

Publicación de resultados negativos

Abilene C Escamilla Ortiz*

We are used to read positive results in scientific articles; it is rare to see negative results published, as they have more value for editors, readers or publishers, and are easier to cite.¹ Mostly they are driven by the “publish or perish” adage, where the winner is almost due to performance, the more quantity of articles published or if published in high impact journals.²

What are negative results? They are usually seen in studies that have small samples or a sample that is underpowered, or whose findings are inconclusive. They also occur when despite a good sample and a well-planned study, the results suggest no effect. And are also seen when instead of the expected result the opposite is observed.¹

Why do researchers get negative results? They occur when the original hypothesis is not accurate and/or is based on false and incorrect assumptions. Negative results are also seen due to errors when choosing the right study or by not using the appropriate statistical test for the study. And they are also observed when the researcher failed to confirm the findings obtained in preliminary reports.³

WHY REPORT NEGATIVE OR INVALID RESULTS?

Publication of negative results by a colleague or by a group of recognized colleagues can lead to changes in the research study itself, e.g., if a drug is not helpful for a certain condition the reporting helps to avoid re-exposing subjects to the effects of that drug.³

DECIDING TO PUBLISH NEGATIVE RESULTS

If the pattern of results is negative, the statistical method should be reviewed. In that case, the study should be repeated several times to rule out technical failures, seek collaboration with other researchers, if possible, and increase the rigor of the research. If the results are in fact negative and worth reporting, they can be published, since they will have an impact on the results.³

The decision to publish negative results is not an easy task both for authors and editors. Several things must be taken into consideration, for example, the ethical issue of using animals, especially when having to repeat a study. The result must be conclusive.³

* Editor, revista
Cirujano General.
orcid.org/0000-
0001-5635-5845



How to cite: Escamilla OAC. Publication of negative results. Cir Gen. 2020; 42(4): 261-262.

WHERE TO PUBLISH NEGATIVE RESULTS?

There are many ways to do this, one of them is to share it with colleagues by publishing it on the company's website. Very few journals accept to publish negative results. Among them are *Positively Negative (PLOS One)*, *Journal of Negative Results in Biomedicine*, *Journal of Negative Results – Ecology and Evolutionary Biology*, and the *Journal of Pharmaceutical Negative Results*.

Publishing well-done controlled clinical studies can prevent other colleagues or researchers from spending energy, time, and resources on similar studies, reduce bias and avoid participants to use the same treatment.³

WHAT CAN WE DO TO ADDRESS THIS PROBLEM IN BIOMEDICAL PUBLICATIONS?

These studies can be published in a separate section of the journal where these peer-reviewed manuscripts are included, or in a special section that includes the methodology describing how the study was conducted. When the study is completed, the journal will either publish it in full, regardless of the findings, or include it in a separate section with an explanation of why it was rejected.²

In the *Cirujano General* journal we have not received this kind of manuscripts, but we are open to include a section for this kind of studies, pending they have a good methodology.

REFERENCES

1. Mlinaric A, Horvat M, Supak Smolcic V. Dealing with the positive publication bias: why you should really publish your negative results. *Biochem Med.* 2017; 27: 030201.
2. Sharma H, Verma S. Is positive publication bias really a bias, or an intentionally created discrimination toward negative results? *Saudi J Anaesth.* 2019; 13: 352-355.
3. Bepalov A, Steckler T, Skolnick P. Be positive about negatives-recommendations for the publication of negative (or null) results. *Eur Neuropsychopharmacol.* 2019; 29: 1312-1320.

www.medigraphic.org.mx