Writing and scientific literature

Results – “Now it is the time for these sun-tanned people to show their worth”*

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Imagine that you have created an introduction capable of contextualizing the subject in a clear and orderly way and that you have, therefore, raised in the reader the uncontrollable urge to read your article. Of course, the reader appears to be hooked. But beware. The reader seems to be a slippery fish that, even when apparently hooked, can escape at any time. Say that you went further and offered the reader a description of the method that shows all the qualities of your study. From design to implementation, through data analysis, everything is clear and appropriate. Now the reader seems ready to witness the great revelation, and you will have the opportunity to show the value of your work.

But be careful: do not stray! Revealing the results of your study requires order and scientific stringency. Using a gastronomic parallel, this is not a buffet, instead it is a dinner in a French restaurant and you are the chef.

Start with the appropriate description of the characteristics of your study participants. Also known as descriptive analysis, it gives an adequate idea of your sample and its representativeness in relation to the population from which it originated. The descriptive analysis must also present the main outcome measures and other variables (exposure or risk factors).

Leave the presentation of measures of association for the end. Remember that they need to be adequate for the type of study that was performed.

Once you have established the content and order of result presentation, you need to decide how to execute it. There are at least three ways to present the results; it is up to the author(s) to decide which option to use. Present them in text form, detailing the obtained values or use tables or charts to disclose them. The sensible use of these three forms will ensure a more pleasurable reading experience.

However, tables and charts have rules regarding their construction and use that must be followed. Tables need to be easy to read, with headings for the columns that allow a clear identification of contents. There should be no need for internal divisions and lateral boundaries, and the decimal values should be homogenous. Footnotes are essential to clarify the abbreviations used (as few as possible) in the body of the table.

Charts, where indicated, are capable of giving results a spatial dimension that can make it easier to compare the results between groups and time periods. However, knowing how to choose the most appropriate chart for the information being presented is a science in itself. For instance, absolute numbers or proportions require separate bars or pie charts, measures of central tendency and dispersion require box-plots, and confidence interval estimates call for bar charts with confidence intervals.

For both types of objects, the title is the key to submitting information related to the study that determines all of its dimensions: what (information presented), who (study participants), where (study site), and when (study period).

But remember that you should not, under any circumstances, disclose the same results in two different ways. It is up to you to choose the form that best suits the type of result that is being presented. Results disclosed in tables and charts must be explained in the text, but not literally reproduced. This practice, of showing duplicated or even tripled results, gives the impression that the authors are unsure about the best way to show their results or, in the worst-case scenario, they are trying to increase the little content they have to display.

Last, but not least, do not be afraid to make all results available in this part of the manuscript. It may seem redundant, but results should be disclosed in the “Results” section, unless the the journal to which the manuscript is being submitted adopts the IMRaD structure, where results and discussion are joined to form a single part of the work.

Now that you have presented your results, get ready to defend them!

But that is another story.

*From the Brazilian song “Brasil Pandeiro”, by Assis Valente.