

The Original Scientific Article and its Relevant Aspects: Brief Notes.

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Summary:

The importance of an original scientific article is given by the relevance of its findings, which can confirm, refute previous research or bring new knowledge to science. Its conclusions represent an advance for the possible solutions to the study problem and, the objectives set in the research. The original scientific article due to its characteristics, scope and, contributions to the scientific world, presents structural conditions very different from the review articles, the latter being relegated mainly to academic studies. In such a way, depending on the impact of the journal, review articles may or may not be accepted for publication. In the absence of sufficiently explored knowledge in areas of science, the original scientific article always provides novel elements that not only have an impact on the general public but also the specialized one. It translates into an informative compendium seen through the perspective and the contributions of the author that translate into generators of new knowledge. In this way, it is original. The answers to the research questions and the objectives of the study have a novel perspective where the author's ideas are the product of a reflective, analytical and synthetic process, which leads through the systematic and critical process to discover new facts, discuss the importance of the findings and infer conclusions.

Keywords:

Original article- Relevant aspects of scientific articles- Scientific articles.

Introduction

Today's science differs from the postulates of the past. The rules for investigative processes have changed. The philanthropic aspects of knowledge have become academic, professional, and even communicational needs, where it is no longer enough to want to do science but it is necessary to demonstrate that the results of a study are scientific contributions 1.

The results published in a scientific article have a great impact on the research community 2. The rules and requirements of peer-reviewed journals have created an environment in which there is no place for the presentation of strange ideas, or concepts, poor results or those that do not give sufficient support to the objectives or hypotheses of the work 3.

In addition to the structural conditions that an original scientific article must meet, it must have the condition of being a primary scientific publication, and for this reason, the data provided and the results are novel 4.

If you intend to write correctly an original article, it is advisable to follow the structure of the IMRAD format. In this way, it is easier for the author to communicate their results in an effective way 5.

The purpose of these brief notes is to present the most relevant aspects of the structure of an original scientific article.

Main body

In many cases, some authors change the structure of a review article to create a hybrid that increases the scientific value of the work. These changes often end up dispersing the author's narrative, which instead of clarifying their search criteria and preserving the methodological structure of a review article, ends up with the vital contents of the study according to the objectives and in the worst-case confuses and even makes the reader feel lost in the context.

How does the construction of an original scientific article begin?

The process begins with concretizing and delimiting a research idea. This idea is not only the product of the imagination; it is accompanied by the solution of a real problem, on a relevant, novel or, little-explored topic. It must have the condition of being reproducible. This means that using the same methodological protocol the same results must be obtained.

Organizational criteria

The title:

It identifies in a concrete way the topic to be investigated, precisely delimits the research, the variables, the object of study and the type of population to be studied. In many cases, aspects such as where and when the research will be carried out are exposed. It must be communicative but synthetic. Identify the thematic area and raise the research problem.

Introduction

Its wording depends largely on the type of research. However, it generally has a deductive character. It describes and points out aspects ranging from the general to the particular research topic. Implicit in the introduction section is the question of why is the work done? In the same way, it shows the knowledge that there is on the subject to be investigated, in its context the problematic situation is inserted and it is possible for the reader can visualize the scientific importance of the study. Its originality is based on the logical aspects of the study problem, whose support is the previous scientific evidence. Its structured construction is organized with precision, clarity and, a synthesis where only elements related to the title of the research that is the object of the study are considered. It usually concludes in its last paragraph with the objective or hypotheses of the work. This allows the reader to know whether the results obtained in the process respond to the previously established objectives.

Materials and methods

It answers the question how has the study been done. Describes in a meticulous and structured way that the research was carried out. It allows the reproduction of the study and thus determines the reliability and validity of the results. The design of the manuscript is described by detailing whether it is a randomized controlled clinical trial, a case-control study, or a cohort study. It is necessary to consider three basic aspects from the methodological point of view: the approach, the type of research and, the theoretical construction of the process. Concerning the type of research, it is important to mention here the quantitative or qualitative nature of the research. Defines how the researcher intends to approach the data to study the central topic of his interest. As far as the research approach is concerned, it is possible to say that this implies above all an epistemological position from which the research object will be built. The nature of the study must be defined from the very approach of the research problem and clearly explain whether the research is quantitative, qualitative or, mixed. The author must describe the type of sample, whether it is random or not random. In cases of probabilistic samples: which are usually used in small populations or groups where they are all equally likely to be randomly selected, the author should place the probabilistic calculation for study. In the materials and methods section, the author describes in an organized and logical way both the tools and the procedures used in the study. Each procedure should be explained separately in the writing of the manuscript. The validity and reliability of the research must be expressed in this section since they allow knowing how the results obtained through the analysis of the variables have the necessary scientific consistency that allows generalizing and enhancing the findings. In this order of ideas, the statistical procedures contribute to the reliability of the results and aim to increase the scientific criteria of the study. The type of statistics used will depend on the size of the sample, whether or not the study is comparative, also on the type of variable. In the case of qualitative variables, categorization is a method for determining, addressing, and interpreting the characteristics of subjects. Similarly, the author can use the resource of transforming qualitative variables by assigning values, as is the case of dichotomous variables into quantitative variables.

Results

Start with the sample overview. It presents only the figures relevant to the objective of your research. It examines the distribution of each variable, determines the association between variables if

applicable, using varied, multivariate analyses and calculations of the magnitude of the association. This section aims to expose and describe the data obtained in the research, to later interpret and contrast them with the theory, the state of the matter, and the research itself. They are intimately related to research objectives, questions, and/or hypotheses. The analysis of results will consist of explaining the results obtained and comparing these with data obtained by other researchers, it is a critical evaluation of the results from the perspective of the author taking into account the works of other researchers and their own.

In the case of qualitative research, the presentation of the results usually responds, from a logical point of view to one of the following three basic forms of argumentation: descriptive, explanatory, and interpretative. The descriptive presentation of the results is limited only to exposing the frequently discursive position of the informants. The explanatory expression establishes logical relationships between the discourses or practices with the characteristics of the subjects or groups, including the comparison between them. The interpretative forms are oriented to accumulate evidence that allows the deep structure to emerge. Therefore, not obvious or openly explicit of the meaning of the practices or discourses submitted to analysis.

Discussion

It is the most complex section to elaborate and organize as well as the most difficult to write. It interprets the results about the original objectives and hypotheses and the current state of knowledge of the subject under study. The two elements of the discussion of an article are a) to indicate in the opinion of the author about what the findings identified in the results section mean and b) how these relate to current knowledge. In the discussion, the results are exposed. Therefore, these results should not be repeated in detail. It is recommended to start with a summary of the main results; the important thing is to highlight and expose the possible mechanisms or explanations of these findings, compare and contrast them with the results of other relevant studies, present the limitations of the study, and argue the implications of the results for future research. The discussion expresses why the findings of the work are already considered scientific evidence. It may include recommendations and suggestions for future research, such as alternative methods that could yield better results, tasks that were not done and should have been done, and aspects that deserve to be explored in future research.

Conclusion

At the end of the discussion or in a separate section, according to the characteristics of each journal, the most significant conclusions and practical importance of the study should be reflected. The conclusions are generalizations derived from the results and constitute the contributions and innovations of the study carried out. Because they are the product of results and discussion, one should avoid making outright statements and draw more conclusions than the results allow. The simplest way to present the conclusions is to list them consecutively, although you can choose to briefly recapitulate the content of the article, briefly mentioning its purpose, the main methods, the most outstanding data, and the most important contribution of the research, and avoid repeating the content of the abstract.

Conclusions of the brief notes

The development of a scientific manuscript that will become an article or paper is a multifactorial challenge that will depend on the acuity and order of the researcher to relate in a clear and precise way his findings, where the indispensable condition will always be to contribute new knowledge to the world of science, and this essentially turns a study into an original.

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