The magic sextet of clinical research

O sexteto mágico da pesquisa clínica

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Abstract

This article approaches some general guidelines for evaluating clinical research (design, execution and reporting), including the initial research “idea” (or question to be answered), “hypothesis and objective” which should be aligned with the “primary variable” to be investigated and the “conclusions” reached on the basis of the results of the study. One cannot forget that the study “title” should reflect the “idea” and relative “objective” of the study and the “conclusion”, emphasizing the “Magic Sextet of Research”.

Descriptors: Biomedical research. Journal article. Investigative techniques.

INTRODUCTION

When participating in evaluations of scientific articles, the works of scientific initiation, end-of-course assignment, the boards of master’s degree dissertation or doctorate thesis, we always focused on the main components of these works, by understanding as the most important, “the brilliant idea and the research question”, the “hypothesis”, the “purpose of the study”, the “primary variable”, the “conclusion” and the “title of the research study”, composing “The Magic Sextet of Clinical Research” (Figure 1), that means the “alignment”, or that is, the direct and consecutive relationship between steps of the scientific publication.
Such researches have results that may corroborate or contradict directly clinical practice by using clinical irrefutable variables [3].

Clinical research is important for generation of knowledge, publication of results and contribution to public health of our country. It is also important for those already familiar with this methodology, by providing update and awareness to new themes, behaviors and learning of their graduate and postgraduate students [4].

It is up to the physician the interpretation of these results to apply them to their patients. The ideal would be that all clinical researches would be perfect, so that we would not have to worry about their quality and we could, in the decision making process, use the confidence interval of 95% of their results [3].

HOW DO WE PERFORM THE CLINICAL RESEARCH?

To perform a scientific research, we must start from three basic prerequisites [4]:
1. Knowing well and to be competent in the subject to be researched;
2. Having access and control the sample;
3. Depending on the minimum possible of third parties to perform the research.

We also should appreciate the scientific method and feel motivated for the learning that we may have during this learning process of the clinical or experimental research [4].
The accomplishment of the scientific research and subsequent publication of the results through original article in scientific journal begin with the brilliant idea that we may have from the research question we want it answered.

For example, if we want to know which is the best method for treatment of the thoracic-abdominal aortic aneurysms: open surgery or endovascular treatment, we should propose a scientific study to answer this question, starting from the “brilliant idea and the research question”, proposing a “hypothesis and a purpose of the research”, according to the plan of intent, review of literature, instruments and procedures tests, finishing with the research project, which contains the proposed “primary variable”, corresponding to:

a) first stage of research planning, followed by:
   b) second phase of research accomplishment finished with the final report and;
   c) third stage of research disclosure, mainly in the form of original article publication [4].

Each research will be composed of three phases: planning, accomplishment, disclosure, consisting the research steps [3] (http://www.metodologia.org/pesquisa) resulting in the publication that will be the contribution of the author or authors to the disclosure of scientific knowledge.

CONCLUSION

When we are called to evaluate scientific studies, we always note the presence of “The Magic of Sextet of Research” as a starting point for the beginning of this evaluation. If present, such sextet represents a good initiation of the clinical research and appropriate structuring of the course conclusion paper, scientific article, master’s degree dissertation and doctorate thesis.

REFERENCES


