

Clinical investigation needed

As stated in last month's issue, this Journal is keenly interested in publishing, and thus recording, good evidence - based medicine for the benefit of its readers. In this country, thousands of physicians are dedicating important years of their lives to medical research in postgraduate programs. Some postgraduate programs have already decided to demand, instead of the traditional thesis, the publication of the correspondent paper in an indexed, peer-review journal. This is a farsighted move.

However, the number of good clinical investigation papers is still low compared to the number of physicians enrolled in these postgraduate programs. Clinical investigation, being vital for the development of Brazil's medical system, is badly needed. There are many diseases and outcomes, and good clinical research requires human resources more than advanced technology.

Those interested should start with a good research question, the simpler the better, for example: Does maternal education during the prenatal period reduce infant mortality? Is weekly medication for tuberculosis better than daily medication?

After defining the research question, try to do a review of the subject on Medline and Embase, as suggested by McKibbin et al.¹ This will help to establish the appropriate definitions of the primary outcomes the physician is interested in. Again, the simpler the topic, the better. For example, "Survival-post myocardial infarction" is easier to confirm and more relevant than "Coronary artery, disobstruction". In addition, the review will help in compiling a list of inclusion and exclusion criteria to be used in the study. Be aware that your research findings

will be useful only to the type of patient included in the study. If the criteria are very restrictive, the applicability of the results will be, too.

Next, calculate the sample size needed to answer the question. Many formulas exist based on the confidence interval calculation; choose the one most appropriate for your study model.^{2,3} Make sure you have sufficient statistical power to detect a significant clinical odds ratio, relative risk, or treatment effect. Define the statistical methods to be applied in interpreting the results.

Write down a comprehensive protocol, submit it to your advisors and experts in the area, and present it to your research division. Seek out feedback, and incorporate the relevant. Prepare yourself for an exhausting, but usually rewarding journey.

Conduct the research carefully, as to increase your confidence in the results obtained. Use your imagination to prevent drop-outs at a maximum. Write a thorough, well-done paper. Whether the results are positive or negative, go for a good journal.

Do not accept passively any rejection. Argue with the editors. Usually, you are better informed about the subject, and thus better able to convince them to publish than anyone else. Welcome to the evidence based world.

REFERENCES

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