

## Studies and Case Series: Relevance for Physiotherapy Research

### Estudos e Série de Casos: Relevância para a Pesquisa em Fisioterapia

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A case report or case series can be understood as a documental-based, scientific research modality related to clinical observation<sup>1</sup>. It is a traditional and relevant model from the point of view of science. By means of this scientific method, unusual findings, unpredictable observations, diagnostic data or results of interventions in rare health conditions or therapeutic modalities presenting extraordinary results or unexpected adverse effects are presented to the scientific community. Case studies can, at the very least, help in generating hypotheses in future studies and in protecting patients.

A case report or study is performed with up to three patients from an unplanned clinical observation. For this reason, your submission to the ethics committee may follow the facts. From four participants, it is considered a series of cases that has a priori scientific question and, therefore, needs prior approval of an ethics committee, according to the legislation in force in Brazil<sup>2</sup>. In other countries, however, even case series and the Pilot study require the prior approval of an ethics committee.

Although many journals have adopted the practice of not accepting case studies, this limitation may undermine the very development

of science. Major journals such as New England, the Lancet, or Nature accept and value case studies. It is precisely the unusual cases that have changed the course of science, as in the case of Thalidomide in the 1960s<sup>3</sup>. Although a phenomenon is observed in only one individual case, it may help to understand etiological agents, as in the recent case of the relation of Zika virus to Microcephaly<sup>4</sup>. Autopsy analysis of isolated cases has also aided in understanding the pathogenesis of several unknown clinical manifestations and the natural history of some diseases<sup>4</sup>.

It is clear that this scientific method is not capable of generating information that can be generalized. However, the fact that it is at the bottom of the pyramid, and therefore has a very low level of evidence for clinical decision making, does not indicate that it is a low value study for science<sup>1</sup>. On the contrary, the case report, when well done, should be highly valued by contemporary science because it can pave the way for findings of great relevance.

In the biopsychosocial model advocated for the clinical approach by the World Health Organization, one of the pillars for health decisions is precisely patient preference. Therefore, it is of

extreme relevance also for evidence-based clinical practice to include this perspective<sup>5</sup>. It is a model that investigates the phenomenon in its real context and not under controlled experimental conditions. For this reason, it can be classified as a qualitative-quantitative method. While it is based on subjective views of patients and health professionals, it presents concrete quantitative data on the results of clinical exams and tests and compares these data with current literature. It can also be understood as a kind of translational research, capable of articulating the findings of experimental research with real life<sup>6</sup>.

In addition to the scientific community's lack of understanding of the relevance of the case studies, another important barrier has been faced in Brazil, involved with ethical issues. Despite the need for high ethical care in the case studies<sup>7</sup>, the recommendations of the National Health Council have been misinterpreted by members of the ethics committees authorized by CONEP. It is evident that the personal data of the medical record and the results of the examinations belong to the patient and therefore he must be consulted and formally authorize their scientific use. This is mainly because the guarantee of confidentiality and privacy is broken. But if the patient himself understands the relevance of making this data public to aid the advancement of science and the benefit of his fellows, who are we to withdraw the participant's autonomy. One way to protect patients is to ask for prior approval of the text to be published.

For Physiotherapy, the case studies may be relevant, as recently presented to RPF<sup>8</sup>. Through a detailed case of a new procedure it is possible to point out new avenues for an accurate diagnosis, a precise prognosis, an effective therapy and a rehabilitation that, in fact, allows the re-inclusion of disabled people in social activities.

The return of the valuation of the report and the series of cases in the list of qualified research can help in the transition from a scientific system oriented by the industries and services, in a capitalist market, to a humanistic oriented system for the people<sup>9</sup>.

## References

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