

# MANAGEMENT OF MULTICENTER RESEARCH PROJECTS

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## GESTÃO DE PROJETOS DE PESQUISA MULTICÊNTRICOS

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## GESTIÓN DE PROYECTOS DE INVESTIGACIÓN MULTICÉNTRICOS

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Multicenter research projects, as the name implies, are projects developed in collaboration with more than one research center, usually involving geographically dispersed research teams, each responsible for a specific part of the study. The realization of multicenter projects allows several advantages compared to studies conducted in a single center. One of the main ones is the inclusion of participants from different regions, cultures, and contexts, which enables larger and more representative samples of the studied population. In addition, it increases the potential for generalization of results and the ability to detect significant effects, contributing to greater validity, reproducibility, and depth of findings<sup>(1-2)</sup>.

By involving researchers with different knowledge and experiences, multicenter projects can also enrich the quality of research by bringing different perspectives to the planning, execution, and analysis of the study. In terms of feasibility and funding, integrating different research centers can provide access to a wider variety of resources, such as data analysis equipment and software. For these reasons, multicenter projects can achieve greater representativeness and methodological robustness, enabling more expressive advances in the production of knowledge. Thus, multicenter studies have been increasingly indicated or encouraged in calls for proposals from funding agencies<sup>(1-3)</sup>.

Despite these potentialities and the growing interest of the scientific community, the execution and, especially, the management of multicenter research projects can be challenging due to the need to align protocols, maintain consistency in data collection and overcome different logistics between the centers involved. In this sense, our objective in this Editorial is to present strategies for the management of multicenter research projects from our experience with investigations of this nature. To this end, aspects related to project design, ethical care, the conduct of data collection and analysis, governance structure,

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communication, and information, monitoring of project progress and dissemination of results will be addressed.

The first step for the elaboration of a multicenter project, as well as any other research project, is the definition of objectives and questions to be answered through the study. Following, a specificity already arises elaboration of a detailed plan that includes the methodology, the necessary resources, the schedule, and the responsibilities of each participating center. At this time, it may be useful to define subprojects, according to specific themes or objectives, to assist in achieving the overall objectives of the project.

As the project must be developed in accordance with applicable ethical and legal regulations, the next step is to obtain all the necessary ethical approvals at each participating center. When the research involves human beings, it is necessary, first, the approval of the project by the Ethics Committee of the proposing institution. After this stage, the project is automatically forwarded for evaluation by the ethics committees of each center involved, if all participating institutions are registered in the Brazil Platform. This process tends to be more time consuming compared to the analysis of projects carried out in a single center, which should be considered in the definition of the study schedule.

Before the effective start of the project, it is essential to standardize data collection and analysis procedures in all participating centers. This is a central element in managing multicenter research projects to ensure consistency and quality of the data generated. The involvement of all participating centers in the study from the stage of elaboration of study protocols and definition of data collection instruments can help in the search for uniformity of the conducts and procedures of the investigation.

In this sense, another aspect that can be useful is the establishment of a governance structure, with the definition of roles and responsibilities of the different involved in the study. In addition to the leader or general coordinator of the project, the creation of coordination committees should be considered, as well as the definition of local coordinators in each participating center or region. Another possibility is the choice of coordinators of each working group according to subprojects, to constitute a reference researcher for each specific theme and/or method.

Throughout the project execution, another key point is the definition of clear and effective communication channels between the different research centers and teams, through regular meetings, videoconferences, and online collaboration tools. In this sense, the importance of a calendar of informative meetings with updates on the progress of the project is emphasized. Another interesting feature to share information and keep teams informed can be an instant messaging group, in WhatsApp, for example.

Mechanisms to continuously monitor overall project progress and progress at each participating center are also important. This can include regular meetings, on-site visits, delivery of partial reports and holding seminars with presentation of the stages developed and goals achieved. Digital project management or online collaboration tools such as Trello, Tables (from Google) or Planer (from Microsoft) can be useful in monitoring the project.

After the execution of the project, comes the moment of dissemination of the findings to the scientific community and the public. This may include the publication of scientific articles, presentation at conferences and dissemination of results to the lay public with a focus on knowledge translation. In this phase of a multicenter project, it is crucial to establish an agreement between researchers on data management, considering aspects such as attribution of authorship in publications, ownership and conservation of data sets, use of data in coursework (undergraduate, specialization, master's and doctoral), as well as opportunities for secondary or future analysis.

Multicenter projects often generate large volumes of data. Therefore, it is essential to elaborate a collective planning to enhance scientific productions. One of the strategies to be considered is the prioritization of the most substantial data for publications in journals with greater indexing and

international circulation, while other possibilities can be explored considering the novelty and innovation of each cut(1,4).

From the presented panorama, it is concluded that the management of multicenter research projects can be complex due to the distributed nature of the team and the challenges involved. However, nursing researchers can benefit from multicenter research projects for the development of coherent proposals, to produce more robust evidence for better health care practices and to strengthen research groups in the area(3,5).

Thus, by way of completion, we hope that this Editorial can contribute and encourage fellow researchers interested in carrying out multicenter projects. It is worth noting that there is a gap in the production of knowledge on this topic, especially in relation to models and strategies for the management of multicenter projects. Future investigations in this direction are necessary to advance the development of science and scientific production of nursing.

### **Collaborations:**

1 – conception and planning of the project: José Luís Guedes dos Santos and Alacoque Lorenzini Erdmann;

2 – analysis and interpretation of data: José Luís Guedes dos Santos and Alacoque Lorenzini Erdmann;

3 – writing and/or critical review: José Luís Guedes dos Santos and Alacoque Lorenzini Erdmann;

4 – approval of the final version: José Luís Guedes dos Santos and Alacoque Lorenzini Erdmann.

### **Competing interests**

There are no competing interests.

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