

The Relevance and Scientific and Methodological Rigor of Qualitative Research in Oncology

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A Relevância e o Rigor Científico e Metodológico da Pesquisa Qualitativa em Oncologia

La Relevancia y el Rigor Científico y Metodológico de la Investigación Cualitativa en Oncología

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Qualitative research is gaining notoriety for nearly one century, specially grounded in social and human sciences¹. Since the beginning of the nineties, qualitative methodology-based scientific articles published in oncology have noticeably increased². However, the debate about the importance, quality, utility and validity of the findings of these articles is still quite present. The unfamiliarity of many students, professionals or investigators about the finality and the scientific and methodological rigor of the development of these studies is the base of most of the criticism.

Considering the advances of cancer treatment whose aim is to expand the value and the quality of therapeutic regimens, it has become increasingly relevant to understand the preferences and experiences of the patients, professionals and managers in oncology care. However, quantitative methods are insufficient and inappropriate to respond to these and other research questions investigating the comprehensive understanding of complex phenomena³. The qualitative researches are included within this scope of investigation through the use of theoretical and methodological approaches.

In oncology, the main approaches in qualitative studies involve although not limited to ethnographic, phenomenological studies, narratives, case studies and data-grounded theory⁴. To respond to research questions in general, observation techniques, interviews, focal groups, imaging and documental analysis are utilized⁵. All these approaches and techniques of data collection are specifically appropriate to meet the purposes of this kind of study aimed to understand the aspects involved in oncology care and results.

The qualitative methods are able to offer a description, exploration or explanation of a phenomenon independently or yet in combination with data of quantitative studies⁴. The main focus of the qualitative research is the elucidation of how and why a phenomenon occurs based in the knowledge, perspectives and priorities of those which are being investigated and events of the real world. A key aspect of this research approach is the acceptance of the uncertainty established in the context of the social interactions⁶. It is therefore an arduous work for the investigators since the priorities of the research are always established from the perspective of the researched.

Bearing in mind its characteristics, it is extremely relevant that a proper methodological-theoretical structure⁷ dully supports qualitative research. The use of a consistent theoretical framework will underpin the authors' analyzes and interpretations avoiding the adoption of the "common sense". This *a priori* definition must be explicit and justified for the readers to understand how the authors adjusted and applied the research questions, the methodological choices and the analyzes performed⁶. However, if the goal of the investigation is to develop inductively a theoretical framework based in the data being collected, the authors should justify in detail the motivations for not using a theoretical reference *a priori*⁴. In short, it is fundamental that the methodological choices of qualitative research are aligned with the research objectives.

Furthermore, qualitative data analysis is not typically a standardized process, it is a custom-built, instead, combining phases of collection, data organization, analysis and synthesis. Within the context of oncology, these analyzes should be transparent. The techniques utilized should be well described and justified in the theoretical reference of choice. The clarity of these information will ensure the readers to comprehend how concepts, categories, dimensions or themes derived from the data. The primary analytical techniques most used in oncology qualitative research are: content analysis, narrative analysis, discourse analysis, phenomenological analysis, structure analysis and data-driven theory

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analysis^{3,4}. These analyzes can be conducted with the assistance of specific computer programs for that purpose as NVivo[®] and MAXQDA[®], or using other non-specific tools as spreadsheets and text editors⁴.

The key to ensure the rigor of qualitative research is in the development of a methodological plan able to justify the choices the investigation team has made. The reader should be clearly cognizant of the research core elements such as the characteristics of the subjects or documents investigated, sources and collection instruments utilized, collection and analyzes techniques in the presentation of the results, discussion and conclusion⁶. The investigators' purpose and committed involvement with their potential influences (reflexivity) must be dully presented, ensuring the required ethics and transparence^{8,9}. The attention in the conduction and presentation of the results of qualitative studies contribute for the internal and external validity of the research, in addition to maintaining the trustworthiness of the analyzes.

When the time to report the results of the research arrives, depending on the methodological choices made, the Brazilian Journal of Oncology (BJO) recommends the authors to use COREQ (Consolidated criteria for reporting qualitative research)¹⁰ or SRQR (Standards for reporting qualitative research)¹¹. These tools define standards to report qualitative researches at the same time they preserve the required flexibility for the different paradigms, approaches and qualitative methods.

Despite the existing methodological challenges in conducting qualitative studies with quality, the results from this type of methodological approach have been essential for the advances of the oncologic care⁴. To widen the applicability of this type of research, it is expected that the investigators are able to address relevant questions and use all the available resources to ensure the required methodological rigor for the development of the scientific knowledge in cancer prevention and control.

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