

Contributions of Reviews Methods for Development of Scientific Knowledge in Oncology

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Contribuições dos Métodos de Revisão para o Desenvolvimento do Conhecimento Científico em Oncologia

Contribuciones de los Métodos de Revisión para el Desarrollo del Conocimiento Científico en Oncología

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Since January 2018, the “Revista Brasileira de Cancerologia (RBC)” is restructuring its editorial policy with the objective of expanding the scientific knowledge in oncology, ensuring the dissemination of manuscripts of quality¹⁻². Under that perspective, the Editorial Board of RBC during 2019 decided to publish only articles of review that used “systematized” methods of research.

Overall, the review of literature as method of research characterizes by the analysis and synthesis of a set of information available about a certain theme that has the objective of understanding the state of the art, build theories, develop a conceptual-theoretical or theoretical-methodological referential for future studies and/or identify aspects that need further investigation³. According to Grant and Booth⁴, there are 14 types of reviews in the context of health, however, those who utilize some level of methodological systematization have greater potential to be used in the practical context as support to other studies and evidence-based decision taking.

At the same time that the “non-systematized” reviews present questions of broad researches, they do not often specify the sources of information (which can bring some bias of selection) and have diversified techniques of analysis; the “systematized” reviews present specific questions of studies, have defined source of information and clear selection parameters (allowing their reproducibility) and use thorough techniques of analysis⁵. The “systematized” methods of review that have been more disseminated in the area of oncology in the last years are systematic reviews with or without meta-analysis, the integrative review, the scoping review and the qualitative meta-synthesis review.

The systematic review is considered the most known type of review⁵. It characterizes for attempting to synthesize the whole knowledge available about a certain theme, generally based in information from experimental studies, mainly randomized clinical trials and from the use of strict techniques of selection and analysis with the objective of avoiding biases and offer trustworthy and significant evidences that are able to support the decision taking in health and the development of clinical and therapeutic guidelines⁶. When accompanied by meta-analysis, these reviews use specific criteria of data extraction and statistical techniques that allow the aggregation of quantitative data of various similar studies, considering the sample size of each study³. Regardless whether the study adopts or not meta-analysis, it is fundamental that there is a clinical trial protocol dully registered and published before the commencement of the study⁷. An international database possible of being utilized for that purpose is PROSPERO (<https://www.crd.york.ac.uk/prospéro/>). In addition, in the moment of reporting the study results, it is recommended that the investigators use, for review of experimental studies, the recommendation PRISMA - Preferred Reporting Items for Systematic Reviews and Meta-Analyses⁸ and for reviews of observational epidemiological studies, the checklist Moose - Meta-analysis of Observational Studies in Epidemiology⁹⁻¹⁰.

The integrative reviews are a specific type of review that synthesize information from empirical or theoretical studies with the objective of offering a wider understanding of a certain phenomenon or health problem¹¹. The maintenance of the scientific integrity and strict and thorough techniques of selection and analysis during this type of review is fundamental, so the result can contribute significantly for the clinical practice and the realization of other studies¹². The process of integrative review is conducted in five stages: (1) identification of the problem and the specific research question; (2) definition of the databases that will be investigated, the selection criteria, considering the steering question; (3) evaluation of the data focused in the authenticity, quality, informational value and representativeness. For such, it is important that the collection of data has been performed in a precise manner, using the appropriate tools;

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(4) critical analysis that allows the proper synthesis of the data as well as its exhibition, discussion and conclusions; and (5) presentation of the review characterized by the clear and comprehensive synthesis, portraying the process of integration and describing pertinent and detailed information, in addition to the limitations of the research^{13,14}.

The scoping review represents a methodology with the following purposes: evaluate arising evidences, clarify concepts or definitions, analyze how the researches in a certain field of knowledge are being conducted, identify factors related to a certain theme, support the elaboration of systematic reviews, identify and analyze scientific knowledge gaps⁶. Specifically, this type of review is utilized when the systematic review is not possible, although the diversity of methodological criteria must be rigorously adopted in the realization of the research¹⁵. In order to ensure the methodological quality and appropriate reports of this type of study it is recommended that the investigators use the checklist PRISMA Extension for Scoping Reviews (PRISMA-ScR)¹⁶.

The qualitative meta-synthesis have the objective of providing a wide range of meaning, experiences and perspectives of the participants in the contexts of health. These researches can gather data in different contexts, create new theoretical or conceptual models, identify research gaps, inform the development of primary studies and offer evidences for the development, implementation and evaluation of interventions in health¹⁷. Many aspects of the methods to synthesize the qualitative research are in the initial stages of development and the protocol ENTREQ - Enhancing transparency in reporting the synthesis of qualitative research¹⁷ has been used as guide for the authors.

The choice of the type of review depends on the objectives of the author and the object of the study. Once defined the model of “systematized” review, it is fundamental that the authors follow the parameters defined in the literature, pursuing the desired quality in scientific reporting.

We wish the evolution of RBC editorial policies may contribute for the publication of researches that collaborate for the improvement of the quality of cancer control strategies. We hope still that the guidance provided in this editorial can stimulate the submission of studies to RBC that use “systematized” review in the upcoming years.

REFERENCES

1. Bergmann A, Casado L, Siqueira ASE, et al. Reestruturando uma revista científica do SUS com base na agenda 2030. *Rev Bras Cancerol.* 2018;64(1):7-8. doi: <https://doi.org/10.32635/2176-9745.RBC.2018v64n1.114>
2. Siqueira ASE, Casado L, Bergmann A, et al. A disseminação de conhecimento científico e a qualidade da informação. *Rev Bras Cancerol.* 2019;65(1):e-0029. doi: <https://doi.org/10.32635/2176-9745.RBC.2019v65n1.291>
3. Paré G, Trudel MC, Jaana M, et al. Synthesizing information systems knowledge: a typology of literature reviews. *Inf Manag.* 2015;52(2):183-99. doi: <https://doi.org/10.1016/j.im.2014.08.008>
4. Grant MJ, Booth A. A typology of reviews: an analysis of 14 review types and associated methodologies. *Health Info Libr J.* 2009;26(2):91-108. doi: <https://doi.org/10.1111/j.1471-1842.2009.00848.x>
5. Botelho LLR, Cunha CCA, Macedo M. O método da revisão integrativa nos estudos organizacionais. *Gest. Soc.* 2011;5(11):121-36. doi: <https://doi.org/10.21171/ges.v5i11.1220>
6. Munn Z, Peters MDJ, Stern C. et al. Systematic review or scoping review? Guidance for authors when choosing between a systematic or scoping review approach. *BMC Med Res Methodol.* 2018;18(1):143. doi: <https://doi.org/10.1186/s12874-018-0611-x>
7. Silagy CA, Middleton P, Hopewell S. Publishing protocols of systematic reviews: comparing what was done to what was planned. *Jama.* 2002;287(21):2831-4. doi: <https://doi.org/10.1001/jama.287.21.2831>
8. Moher D, Liberati A, Tetzlaff J, et al. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *PLoS Med.* 2009;6(7):e1000097. doi: <https://doi.org/10.1371/journal.pmed.1000097>
9. Ministério da Saúde (BR), Secretaria de Ciência, Tecnologia e Insumos Estratégicos, Departamento de Ciência e Tecnologia. Diretrizes metodológicas: elaboração de revisão sistemática e metanálise de estudos observacionais comparativos sobre fatores de risco e prognóstico. *Brasília: Ministério da Saúde; 2014.*
10. Stroup DF, Berlin JA, Morton SC, et al. Meta-analysis of observational studies in epidemiology: a proposal for reporting. Meta-analysis of Observational Studies in Epidemiology (MOOSE) group. *JAMA.* 2000;283(15):2008-12. doi: <https://doi.org/10.1001/jama.283.15.2008>
11. Whitemore R, Knaff K. The integrative review: updated methodology. *J Adv Nurs.* 2005;52(5):546-53. doi: <https://doi.org/10.1111/j.1365-2648.2005.03621.x>
12. Russell CL. An overview of the integrative research review. *Prog Transplant.* 2005;15(1):8-13. doi: <https://doi.org/10.7182/prtr.15.1.0n13660r26g725kj>

13. Hopia H, Latvala E, Liimatainen L. Reviewing the methodology of an integrative review. *Scand J Caring Sc.* 2016;30(4):662-9. doi: <https://doi.org/10.1111/scs.12327>
14. Souza MT, Silva MD, Carvalho R. Revisão integrativa: o que é e como fazer. *Einstein (São Paulo)*. 2010;8(1):102-6. doi: <http://dx.doi.org/10.1590/s1679-45082010rw1134>
15. Peters MD, Godfrey CM, Khalil H, et al. Guidance for conducting systematic scoping reviews. *Int J Evid Based Health.* 2015;13(3):141-6. doi: <https://doi.org/10.1097/XEB.0000000000000050>
16. Tricco AC, Lillie E, Zarin W, et al. PRISMA extension for scoping reviews (PRISMA-ScR): checklist and explanation. *Ann Intern Med.* 2018;169(7):467-73. doi: <https://doi.org/10.7326/M18-0850>
17. Tong A, Flemming K, McInnes E, et al. Enhancing transparency in reporting the synthesis of qualitative research: ENTREQ. *BMC Med Res Methodol.* 2012;12:181. <https://doi.org/10.1186/1471-2288-12-181>

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