



## **EDITORIAL**

The cumulative character of scientific knowledge has allowed the evolution of humanity because it is precisely accumulated knowledge the basis on which new research is developed, giving rise to processes of refutation, confirmation or exploration of new knowledge that contribute to the explanation of different phenomena under study. This way, knowledge evolves, new theories emerge, and phenomena are explained [1].

At present, the Internet has led to the explosion of information available, giving the man of the twenty-first century certain benefit when compared to old times in which they spent a lot of time searching for information through manual searches in libraries, catalogs, printed journals [2]. Within databases and the Internet, day by day the available information, software developed, blogs created, web pages, published scientific documents, etc. are growing. This large volume of available information requires a rigorous exercise discerning relevant information and ways to access it.

An essential part of all research is to carry out a literature review, which is an important instrument that serves to inform and develop the practice and invite to discussion in the academic work. If the term *review* is analyzed literally under the bibliography, it means looking back at what has already been written on a particular topic. Nowadays, different types of review paper are known, as listed below:

1. Critical review: As its name indicates, this type of article aims to show a critical evaluation of the quality of what has been investigated in the literature. It goes beyond the mere description of articles providing analysis and conceptual innovation; it should examine, present, analyze and synthesize. The final product is usually a hypothesis or a model that may constitute a synthesis of existing models, schools of thought or may be an interpretation of existing data [3].

2. Literature review: A review of the literature provides an examination of recent or current literature, which can cover a wide range of topics at different levels of completeness, which may include research findings [4]. This type of review implies that the sources discussed have some degree of importance e and they possibly have undergone a peer review process.

3. Mapping review/systematic map: The purpose of this type of review is to determine the scope (nature and extent) of available research evidence. This type of review has been developed and refined by the Evidence for Policy and Practice Information and Coordinating Centre (EPPI-Centre), Institute of Education, London to map out and classify literature on a particular topic [5]. These reviews can be distinguished from scoping reviews because the subsequent outcome may involve further review work or primary research and this outcome is not known previously.

4. Meta-analysis: It is a technique that statistically combines the results of studies to provide a more precise effect of them [3]. For the meta-analysis to be valid, all studies are required to have similar characteristics such as the population being studied, the intervention being explored, and the comparison. It is required that the values or results have been measured in the same way at the same time intervals.

5. Mixed studies review/mixed methods review: This type of review refers to any combination of methods, where at least one of the components is a (usually systematic) literature. For instance,

it could include interviews or a stakeholder consultation with a systematic review. Approaches incorporating qualitative and quantitative assessment are combined. For example, the EPPI-Center at the University of London has developed its own methods for bringing together health promotion outcomes with studies describing actual processes that were used [6].

6. Overview: An overview is a generic term used for any summary of literature that attempts to examine the literature and describe its characteristics, therefore, it can be used for different types of reviews. The term "overview" has been previously used as a synonymous expression of "systematic review" to describe "particular approach". As a consequence, the value of the term within a typology is debatable, and the general intention conveyed by the term must be attractive to readers [3].

7. Qualitative systematic review/qualitative evidence synthesis: This review consists of a method to integrate or compare the findings of qualitative studies. The accumulated knowledge of this process can be the development of a new theory, a narrative, a wider generalization or an interpretative translation. The objective is not cumulative, in the sense of "adding studies together", as with the meta-analysis. On the contrary, it is interpretive as the extension of a certain phenomenon [7]. There remains considerable confusion regarding the term "qualitative systematic review". This is a historical legacy of the systematic review movement, when the results of the primary studies are summarized but not statistically combined, the review can be referred to as a qualitative review. Other terms found in the literature include the tautological qualitative meta-synthesis and the misleading "metaethnography" (which describes a method that can be adapted to the interpretation of many types of qualitative research, not simply ethnographies).

8. Rapid review: These rapid review methods, seen initially by some as a concession to the need for evidence-based decisions within a policymaker's time frame, have recently gained legitimacy in the form of rapid evidence evaluations [3].

9. Scoping review: This review provides a preliminary assessment of the potential size, nature and scope of available research evidence.

10. State-of-the-art review: State-of-the-art reviews are specifically mentioned by MeSH database scope notes for entries under Review, Literature as a Topic and Review (Type of Publication). Such reviews represent a subtype of the most generic review of the literature, the more advanced ones tend to address more current issues in contrast to the retrospective and current combined approaches of literature review. The review may offer insights on a topic or highlight the need for more research in one area [4].

11. Systematic review: It is the most known type of review; this review systematically seeks to evaluate and synthesize evidence from the research [3].

12. Systematic search and review: This review combines the strengths of a critical review with a comprehensive research process. Typically, this type of review addresses general questions and the result is the best evidence for synthesis [3].

13. Systematized review: These reviews attempt to include one or more elements of the systematic review process. They can be identified as "systematic review".

14. Umbrella review: The need for umbrella review was first identified as a consequence of Cochrane collaborative activities. However, systematic reviews become more copious, with greater potential for use as a global review than as a mechanism for aggregation of findings from several reviews that address specific questions [3].

## References

- M. Richart, J. Cabrero, B. Tosal, M. Romá, and M. Vizcaya, Búsqueda bibliográfica en enfermería y otras ciencias de la salud. Alicante, Spain: Universitat d'Alacant, 2001.
- M. Coughlan, P. Cronin, and F. Ryan, *Doing a literature review* in *Nursing, Health and Social Care*, 1<sup>st</sup> ed. London, UK: SAGE, 2013.
- B. M. J. Grant and A. Booth, "A typology of reviews: an analysis of 14 review types and associated methodologies," *Health Information and Libraries Journal*, vol. 26, no. 2, pp. 91-108, 2009.

- National Center for Biotechnology Information (NCBI), Review Literature as Topic, 2008. [Online]. Available:http://www.ncbi.nlm.nih.gov/sites/entrez?cmd= Retrieve&db=mesh&dopt=Full&list\_uids=68012196. Accessed on: Feb. 06, 2017.
- 5. K. L. James, N. Randall, and N. Haddaway, "A methodology for systematic mapping in environmental sciences", *Environ. Evidence*, vol. 5, no. 7, pp. 1-13, 2016.
- S. Oliver *et al.*, "An emerging framework for integrating different types of evidence in systematic reviews for public policy," *Evaluation*, vol. 11, no. 4, pp. 428-466, 2005.
- 7. A. Booth, "Brimful of STARLITE: toward standards for reporting literature searches," *Journal of the Medical Library Association*, vol. 94, no. 4, pp. 421-429, 2006.

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