

A review of common evidence review designs published in JAN; a 10-year review.

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Editorial

A review of common evidence review designs published in *JAN*; a ten-year review

One of the core aims of *JAN* is to contribute to the advancement of the evidence-base that underpins nursing practice, education, management or policy. Evidence-based care is concerned with applying the best available evidence to a specific clinical situation along with clinical experience, patient preference and available resources to ensure the best outcome for the patient (DiCenso et al. 1998). While the journal supports the disseminating of high quality empirical research, evidence reviews and synthesis are also reported and are vital for ensuring nurses have access to succinct and robust evaluations of current research to inform clinical decisions. Although an evidence synthesis offers answers to specific clinical health questions, researchers and post-graduate research students typically undertake a rigorous summary of research as a prerequisite to provide justification for the empirical work subsequently undertaken. The challenges of undertaking a review of the literature and choosing a suitable design is further complicated for those where there is an expectation to publish their review and meet the expected standards in high impact journals. Discussions with post-graduate health students over the years suggest that while there is a desire to undertake a review that is publishable, choosing an appropriate review design can be challenging. Furthermore, there is confusion about what type of review can be labeled 'a systemic review'.

What is a systematic review, and can all reviews undertaken systematically be described as a 'systematic review'?

Systematic reviews came to the fore as a recognised method to summarise and critically evaluate available research to answer a specific clinical question with the foundation of the Cochrane collaboration in 1993. Cochrane, as it is now known, publishes high-quality independent evidence reviews to inform healthcare decision-making, via the Cochrane Library, that have been undertaken using methodologies described in the Cochrane Handbook, updated in 2020. There is an expectation that reviewers collate evidence that fits pre-specified eligibility criteria in order to answer a specific research question (Higgins et al. 2020). Using explicit, systematic methods and documenting these in a review minimises bias. While the initial focus of Cochrane was reviews of randomised controlled trials of interventions, Cochrane now publishes five types of systematic reviews; 1) Reviews of the effects of interventions; 2) Reviews of diagnostic test accuracy; 3) Reviews of prognosis; 4)

Overviews of reviews to compile evidence from multiple systematic reviews; and 5) Reviews of methodology. Systematic reviews using Cochrane methods are centered in the quantitative research paradigm, with a focus on experimental studies usually in the form of randomised control trials (RCTs). This has led to a discord between qualitative and quantitative researchers, with the former having to defend other systematic review designs to purist quantitative researchers who expect a Cochrane style methodology.

How do we resolve the issue of the use of the term 'systemic review' across research paradigms?

The term 'systematic review' is now being more widely applied, particularly across qualitative arenas, to reflect more complex health care delivery and multi component interventions. A review labelled 'systematic' must follow clear replicable processes that are rigorously undertaken and every effort should be made to reduce reviewer and selection bias and the findings reported. Deciding whether a review has been undertaken 'systematically' is further complicated as a typology of reviews published in 2009 identified 14 types of reviews (Grant & Booth 2009), to which realist and integrative reviews can now be added. Furthermore, even within the quantitative paradigm a distinction is often made between a Cochrane and Non-Cochrane review, supported by research that suggests Cochrane reviews have greater superior methodological rigor than Non-Cochrane reviews with the former twice as likely to have positive conclusions (Tricco et al. 2009; Windsor et al. 2012). A systematic review, including those that do not use Cochrane methods, should be undertaken rigorously and to an adequate standard. Cochrane systematic reviews are labelled as such and perhaps Non-Cochrane systematic reviews could follow a similar structure, where explicit and recognisable methods have been followed such as those described by the Joanna Briggs Institute (<http://www.joannabriggs.edu.au/about/home.php>), the Evidence for Policy and Practice Information and Co-ordinating Centre (EPPI-Centre) (<http://eppi.ioe.ac.uk/cms/>) and Centre for Reviews and Dissemination (<https://www.york.ac.uk/crd/>).

JAN updated guidance on articles submitted for reviews in 2019, with an expectation that the article title should begin with a descriptor that best describes the type of review, such as: 'systematic review', 'quantitative systematic review', 'qualitative systematic review', 'meta-analysis' or 'integrative review'. In addition, the review findings must be presented using appropriate subheadings and adhere to relevant standards of reporting such as PRISMA for systematic review of randomised control trials (Moher et al. 2009), or RAMESES publication standards for realist synthesis or meta-narrative reviews (Wong et al. 2013).

Has there been a change in the type of reviews published in JAN?

Nurses not only undertake high quality reviews that meet journal expectations and standards, but contribute to developing review methodologies. We wondered whether there has been a change in the type of reviews published in *JAN* and undertook a title and abstract review of journal content over 10 years (2011-2020). We reviewed all editions of *JAN* across this period, and recorded the review type as documented in the title, or abstract if unclear. A total of 361 reviews were documented, with a gradual increase from 26 in 2011 to 66 in 2020, with a significant increase in the number of quantitative systematic reviews reported from 2 in 2011 to 33 in 2020 (Figure 1).

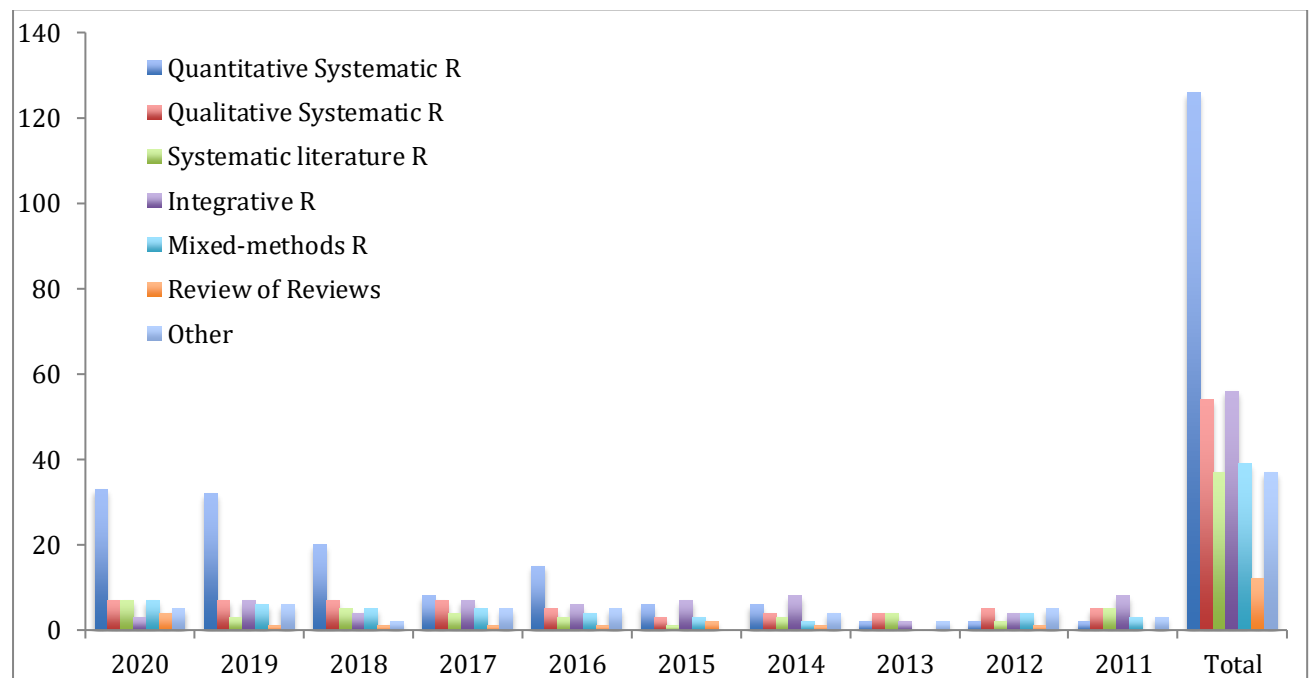


Figure 1: Types of reviews published in JAN over 10 years (2011-2020) (n=361)

With an increasing range of reviews typologies we grouped reviews into 7 categories: Quantitative Systematic R; Qualitative Systematic R; Systematic literature R; Integrative R; Mixed-method R; Review of Reviews; and other if there were less than 10 of the review designs published (Table 1). Quantitative systematic review was overwhelmingly the most common review design, with 35% (n= 126) in this category (Table 1) but this was a diverse group and includes reviews labeled as quantitative systematic review / quantitative systematic reviews & narrative synthesis / meta-analysis / Cochrane review/ /Psychometric systematic reviews / PRISMA review and review of RCTs.

Review design	N	Review design- other	N
Quantitative Systematic R (quantitative SR / quantitative SR & narrative synthesis / meta-analysis / Cochrane review/ /Psychometric SR / PRISMA review/ review of RCTs)	126	Methodological R	7
Qualitative Systematic R (including meta-ethnography/ metasynthesis /meta-aggregation/ qualitative evidence synthesis/ qualitative thematic review)	54	Realist R (including rapid realist review, realist synthesis)	5
Systematic literature R (without type specified)	37	Narrative R (including narrative synthesis)	5
Integrative R (including mixed methods integrative review)	56	Literature review (including review not specified)	4
Mixed-method R (including mixed method thematic review/ quantitative and qualitative synthesized evidence)	39	SR methods for instruments (including measurement properties)	3
Review of Reviews (including umbrella reviews)	12	Evidence R (including rapid evidence review)	3
		Theoretical R (theory synthesis)	3
		Scoping review	2
		Best evidence R	1
		Comparative R	1
		A retrospective bibliometric analysis.	1
		Mapping review and synthesis	1
		Critical interpretative synthesis	1
Total	324		37

Table 1: Number and percentage of reviews by typologies (n= 361)

In summary

The purpose of a review of healthcare literature is primarily to summarise the knowledge around a specific question or topic that can support health professionals and organisations make decisions about a specific intervention or care issue. The number of reviews published in *JAN* over the last ten years, even taking into account the shift to bi-month content, (Figure 1 and Table 1), has steadily increased. Systematic reviews are the most common approach to summarising, interpreting, and making recommendations from synthesizing the evidence in healthcare. However, the increasing number of reviews labeled ‘systematic review’, whether quantitative or qualitative still leads to confusion as stated at the outset of this paper. We believe a broader conceptualization of what is meant by a systemic review reflects the type of reviews published in *JAN* (Table 2). As argued there are a number of systematic review types available to scholars and Cochrane methods are not exclusive to this type of review. There are other robust methodological approaches described by Joanna Briggs Institute, the Evidence for Policy and Practice Information and Co-ordinating Centre (EPPI-Centre) and the Centre for Reviews and Dissemination. Each has their own strengths and can contribute to robust reviews as long as the guidance is understood and applied rigorously.

In summary, delineating between the different types of systematic reviews has potential to aid those undertaking a review to consider choosing an appropriate design that meets the review question. It is also helpful for reviewers who are reviewing these articles for publication in peer review journals. It is imperative that authors of subsequent systematic review publications and reports, clearly identify the type of review undertaken and describe the design and methods in detail, adding relevant detail where useful to the title of the publication. A clear title gives immediate insight into the

methodological approach of the systematic review and the reader can judge if they wish to read on further. In addition, acknowledging robust peer review processes enables the reader to evaluate the strengths and limitations of the review, and application of findings to their own practice.

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