

Letter to the Editor

## Conducting Literature Reviews in Resource-poor Settings: Perks of Collaboration and Technology to Overcome Challenges

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In this Letter to the Editor, we would like to share our experience on how we conducted a literature review while navigating the challenges using technology and collaboration. We conducted an integrative literature review on challenges related to integrating patient safety into nursing curricula and providing patient safety education for nursing students. We wish to elaborate on the methods we used to overcome limitations particularly prevalent in resource-poor settings. We hope this would be useful to other researchers in similar settings, who would consider using a systematic approach to literature reviews.

### What is a literature review?

A literature review is “a piece of academic writing demonstrating knowledge and understanding of the academic literature on a specific topic placed in context. A literature review also includes a critical evaluation of the material; this is why it is called a literature review rather than a literature report. It is a process of reviewing the literature, as well as a form of writing” (Institute for Academic Development, 2023). Among the many definitions of “literature review”, the authors endorse the following two definitions which emphasize the importance of a systematic approach to reviewing the literature.

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*Sri Lankan Journal of Nursing*, 2023, 2 (1): 4-9

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Received: 23<sup>rd</sup> January 2023; Accepted: 29<sup>th</sup> April 2023; Published: 31<sup>st</sup> July 2023

**How to cite:** Dissanayake, D.M.A.P., Warnakulasuriya, S. S.P., Pincha Baduge, M.S.D.S., & Dharmasena, K.P. (2023). Conducting Literature Reviews in Resource-poor Settings: Perks of Collaboration and Technology to Overcome Challenges. [Letter to the Editor]. *Sri Lankan Journal of Nursing*, 2(1), 4-9



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According to Fink (2019, p3), “Literature review is a systematic, explicit, and reproducible method for identifying, evaluating and synthesizing the existing body of completed and recorded work produced by researchers, scholars, and practitioners”. Similarly, Aveyard (2018, p2), defines literature review as “a comprehensive study and interpretation of literature that relates to a particular question. First, one must identify a research question and then seek to answer this question by searching for, appraising and analyzing relevant literature using a systematic approach”.

A comprehensive literature review will incorporate a review question, specific methods or strategies in literature search, appraisal and analysis of literature, results of the review, and a discussion with practice recommendations (Aveyard, 2018). Booth et al. (2021) reiterate the same by suggesting that a literature review should be carried out systematically in four steps which they acronym as SALSA; Search, Appraisal, Synthesis and Analysis. Application of a specific question is important regardless of whether it is done for a thesis chapter or a standalone research article.

Many researchers have attempted to classify the terminology of vastly different types of literature reviews (Booth et al., 2021; Gough et al., 2012; Whitemore et al., 2014). It is challenging because researchers take the liberty of inventing a new label or new form of review that differs slightly from its predecessors rather than seeking standardization. Booth et al. (2021) have classified literature reviews into “review

families” and described in detail the types of literature reviews below;

**1. Traditional review family-** Critical review, Integrative review, Narrative review, State-of-the-Art review, Narrative summary.

**2. Systematic review family-** Campbell review, Cochrane review, JBI review, meta-analysis, Network meta-analysis, Systematic review

**3. Review of reviews family-** Cochrane overviews of reviews, Overview, Mega-aggregation, Mega-ethnography, Umbrella review

**4. Rapid review family** -Rapid Review, Focused review, Rapid evidence synthesis, Rapid qualitative evidence synthesis, Rapid realist synthesis, Rapid evidence assessment

**5. Qualitative review family** -Qualitative evidence synthesis, Qualitative interpretative meta-synthesis, Qualitative research synthesis, Framework synthesis

**6. Mixed methods review family-** Mixed methods synthesis, Narrative synthesis, Meta-narrative review, Bayesian meta-analysis, EPPI-centre review, Critical interpretive synthesis, Realist synthesis - Realist review

**7. Purpose-specific review family-** Scoping review, Mapping review, Systematized review, Concept synthesis, Expert opinion - Policy review, Technology assessment review, Methodological review, Systematic search and review

This classification is available in the University of Melbourne's library guide "Which review is that? A guide to review types" (Library Guides at University of Melbourne, 2023).

### **Importance of adopting a systematic approach to literature review**

Literature reviews are important as they summarize and present an analysis of the literature that is available on any topic. This enables the reader to get a comprehensive understanding of the important aspects within the purview. A thorough literature review is important to make an unbiased academic judgement (Aveyard, 2018). An academic judgement should be based on all the reliable literature available on a particular area rather than a few handpicked articles. Adopting a systematic approach to literature review eliminates the tendency of biased decision-making. Another important contribution of the literature review would be providing an evidence-based rationale to generate policy and practice guidelines.

### **Challenges in conducting high-quality literature reviews**

Most of the high-quality healthcare databases such as CINAHL and MEDLINE are available with paid subscriptions. This is a challenge faced by most of the researchers in Low and middle-income countries (Zhang et al., 2023) such as Sri Lanka where numerous research studies done by Sri Lankan nurse researchers annually, in spite of the fact that literature search engines such as CINAHL and MEDLINE are not freely accessible. Hence they are often limited to

using Google Scholar for literature reviews. Those who face this challenge rarely even consider conducting systematic reviews or any other systematic literature review.

The following could be some of the strategies to help researchers in conducting a comprehensive literature review.

#### **1. Retrieving Google Scholar search results**

Google Scholar is not the ideal search engine for systematic reviews due to constantly changing content, algorithms, and database structure (Giustini, & Boulos, 2013). Researchers face several limitations when using Google Scholar. It neither provides an advanced search function nor does it use subject headings for searches. The unavailability of an inbuilt function to extract Google Scholar search into Microsoft Excel or any other citation referencing software such as Mendeley (Elsevier Solutions, 2023) as a "bulk" makes it less reviewer-friendly.

However, it is useful as a supplemental source for systematic reviews and other literature searches. Since Google Scholar is a freely accessible search engine, it is useful to know how to make maximum use of it.

"Publish or Perish" (Harzing, 2022), is a freely available software program that retrieves and analyzes academic citations. It retrieves data from many sources including but not limited to Google Scholar, Crossref, PubMed, Scopus, and Web of Science. This has the ability to obtain the raw citations and analyze and present a range of citation metrics, including the number of papers,

total citations, and the h-index (Harzing, 2022). This software can be used to conduct keyword searches in Google Scholar using Boolean operators. It also enables exporting search findings to any of the file formats (e.g. RIS, CSV, BibTex) supported by the selected citation management software or to an MS Excel sheet as a list consisting of the title of the article, authors, abstract, published year, published month, journal volume, issue, pages, accession number, DOI, etc. Both these functions are not available from Google Scholar as in-built functions, hence the use of Publish or Perish can be useful.

## **2. Collaborating with researchers**

Most foreign institutions provide access to advanced search engines such as CINAHL or MEDLINE. Collaborating with local peers and colleagues who have access to resources of foreign institutions can be invaluable for expanding and enhancing literature searches. In addition, finding researchers who are willing to collaborate virtually is also an opportunity to enrich the literature review.

## **3. Collaborating with multiple reviewers using literature review software**

“Covidence” (Veritas Health Innovation, 2022), “Rayyn” (Ouzzani et al., 2016), and CADIMA (Kohl et al., 2018) are some useful software for collaborations among multiple reviewers when conducting literature reviews. These software provide the facility to mark reviewers' decisions to include or exclude extracted articles, in each review cycle. These act as a platform to

conduct the review, which records each reviewer's actions, decisions, and progression in the review. There are numerous products available and it will be worth exploring their suitability (Center on Knowledge Translation for Disability and Rehabilitation Research, 2023; Kalantar, 2021; Kellermeyer et al., 2018). These software solutions provide free versions apart from paid subscriptions. Covidence provides free access to research groups based on low and lower-middle-income countries upon request. There are foreign Universities that provide free access to some of the software. It will be useful to verify with international collaborators, the availability of the above. These software coordinates between reviewers facilitating blinded voting of the articles at the initial title and abstract screening and then at article reviewing.

## **4. Actively taking part in the literature search**

Any reviewer without access can actively take part in the search virtually. The members of the review team could get connected via any online video conferencing platform (e.g. Zoom) and can virtually be present at the time of the literature search. A reviewer who has access to databases can log in and share the screen with the rest of the team. Another important resource at this stage would be YouTube tutorials on subject heading search or keyword search. Novice reviewers can learn the basics of database searches through online tutorials and collaborate effectively.

## 5. Collaborating on in-depth analysis

Reference management systems such as Mendeley and Endnote provide sharing articles among a group, which supports a group of reviewers to share notes and comments written on the same article. This allows reviewers to share views with the rest of the group conveniently.

A detailed log of articles with all the important details can be imported from literature review software to Microsoft Excel, which can later be used for analysis. This Excel sheet and the draft of the article can be saved in Google Drive as shared documents among the reviewers, which can be edited and commented on by all members.

Conducting a thorough literature review using a systematic approach can derive invaluable knowledge. As much as it contributes to existing knowledge of a particular field of research, it also provides an enriching experience to the reviewer. A quality literature review is seldom generated from resource-poor settings. Conducting research is inherently challenging in low and middle-income countries due to the lack of resources and funding, the same applies to literature reviews. In the Sri Lankan context, the lack of access to online databases and journals poses a significant barrier to the systematic conduct of literature reviews. This challenge was effectively addressed through international collaborations and the strategic utilization of technology. We managed to navigate this challenge through international collaborations and the use of technology. We hope nursing researchers

with similar challenges are encouraged to conduct literature reviews through collaborations. While we recognize that various strategies could address this issue, the suggested approaches are particularly well-suited to our context and can be easily implemented.

## Conflict of interest

The authors declare no conflict of interest. The software we have mentioned here are available as open source and we do not have any financial affiliations with these products.

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