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A Concise, User-friendly Guide to Conducting and Reporting Scoping Reviews in Healthcare

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Abstract: Scoping reviews are increasingly common in healthcare, including in nursing. However, unlike systematic reviews, they remain a somewhat newer entity. Therefore, there is still some uncertainty regarding what scoping reviews are, and when and how they should be undertaken and reported. This paper aims to clarify some of the common misconceptions associated with scoping reviews.

Scoping reviews may be undertaken for many reasons, such as to map a body of literature (especially in developing areas of knowledge and practice), clarify key concepts, identify the volume of existing evidence or sometimes used as preliminary step to a systematic review. While they are similar to systematic reviews, scoping reviews are undertaken for different reasons and usually review different types of evidence.

The Joanna Briggs Institute (JBI) published updated guidelines for the conduct and reporting of scoping reviews in 2020 and to ensure consistency and rigour, all scoping reviews should now be conducted using such guidelines. This paper provides a concise overview of when scoping reviews are indicated and how they should be conducted and reported.

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Introduction

Reviews of primary research are now increasingly common in healthcare, as they offer a means of synthesising evidence, which can help inform practice, policy, education and/or further related research. As reviews have increased in frequency and popularity, several different types of reviews have emerged, such as systematic reviews and, more recently, scoping reviews.

However, while systematic reviews are now associated with clear, well-established methodological

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frameworks, scoping reviews are a somewhat newer entity in healthcare. Consequently, there remains some confusion about what scoping reviews are, when they are indicated and how they should be conducted and reported. This paper therefore aims to demystify some of these common misconceptions.

Scoping reviews may be undertaken for several reasons but are commonly used to map a body of literature (particularly in rapidly emerging areas and/or where the existing literature is likely to be large and

diverse), clarify key concepts, theories or characteristics in a particular field and/or identify the nature and extent of existing evidence.^{1,2,3} They may also be used to summarise and disseminate research, identify gaps in existing evidence, inform future-related research and, in some instances, may also be used as a precursor to a systematic review.^{1,2,4} However, scoping reviews are rarely used as a preliminary step to a systematic review, as an exhaustive literature search is rarely undertaken and, often, the nature of the existing, related evidence base is such that it may not yet be amenable to a systematic review.

Systematic Reviews Versus Scoping Reviews

Despite their increasing use in healthcare, there remains some confusion about how scoping reviews differ to systematic reviews. While they share many similarities, they differ in nature, purpose, scope, design and reporting. Consequently, although both should follow a structured process, they are largely performed for different reasons, typically review different types of evidence and have some key methodological differences.²

There are, of course, many different types of systematic reviews, but they have commonly been used in healthcare to synthesise quantitative evidence, relating to particular conditions or interventions, to answer specific questions relating to effectiveness.¹ Well conducted systematic reviews should follow an appropriate, predetermined study protocol, incorporate an extensive search strategy (to identify all relevant, available evidence), use rigorous methods, evaluate quality of evidence, assess risk of bias and synthesise retrieved evidence.^{2,4,5} They are therefore particularly useful for addressing questions relating to feasibility, appropriateness and/or effectiveness of an intervention, especially where evidence is required to inform practice, clinical guidelines and/or healthcare policy.²

However, despite their utility, systematic reviews are not always appropriate. For example, if there is a need to address a broader type of research question, identify certain characteristics or concepts, or map a wider, potentially heterogeneous body of literature, particularly in a nascent field, then a scoping review

is usually far more appropriate.¹ For instance, particularly in the early stages of the current pandemic, managing critically ill patients affected by COVID-19 presented a significant healthcare challenge. There has since followed a proliferation of related publications in this rapidly developing field, which were designed to better inform practice. Such publications have included opinion pieces, discussion papers, editorials, case reports and evolving empirical studies. It is therefore likely that such a large, disparate, emerging evidence base may not yet lend itself to a systematic review but may be far more amenable to a scoping review.

The indications for scoping reviews are therefore somewhat different to systematic reviews. They are no less rigorous, but are a slightly different entity and are performed for different reasons.³ Scoping reviews may perhaps be regarded as hypothesis-generating, while the more traditional, Cochrane-style systematic reviews may possibly be regarded as hypothesis-testing.⁴

There are, however, several common problems associated with scoping reviews. For example, until relatively recently, few specific guidelines existed for scoping reviews. Consequently, there has been a lack of consistency in the terminology, purpose, conduct, rigour and reporting in many published scoping reviews.^{2,4} Scoping reviews also do not normally incorporate an exhaustive search strategy, include an assessment of methodological quality or risk of bias and usually do not critically appraise and/or synthesise evidence from different studies.^{2,3,4} Making potential recommendations for practice or policy may therefore be problematic and, if produced at the very least should be set within an appropriate context.

How to Conduct and Report Scoping Reviews

The first scoping review guidelines were published in 2005⁶ and, to further standardise conduct and reporting, were reformulated by The Joanna Briggs Institute (JBI) in 2015⁴ and subsequently updated in 2020.⁷ To ensure consistency, transparency and rigour, all scoping reviews should be conducted using such guidelines and should be guided by a clearly defined question and an *a priori* scoping review protocol. However, given the iterative nature of some scoping reviews, deviations from the

review protocol may sometimes be necessary and, if required, must be clearly justified.¹ As with all reviews, key methodological decisions should be carefully considered, described and justified.

Most scoping reviews should have an appropriate background section, which sets the scene to the review, outlines the topic area, defines any key concepts and briefly outlines the necessity for a scoping review. The background section should also inform the research question, which needs to be clearly defined, even if it somewhat broad, as it will help to guide the review itself.

As with most evidence reviews, appropriate inclusion criteria should be developed when designing the review protocol. However, as scoping reviews aim to present an overview of the existing literature in a particular field, all relevant literature should normally be included, regardless of methodological quality.⁶ Other inclusion criteria may comprise population(s) (e.g., relevant socio-demographic characteristics, such as age and gender), key concepts (e.g., interventions or concepts of interest) and context (e.g., clinical settings).¹

The literature search strategy should be comprehensive in order to identify relevant published and unpublished literature. It should identify key search terms, databases used and any subsequent citation chaining activity (e.g., interrogating relevant reference lists from retrieved outputs to identify additional appropriate studies).¹ Parameters for languages and dates of publications should also be carefully considered as part of the search strategy.¹

The number of studies identified and selected for inclusion must be reported and accompanied by a search decision flowchart, preferably in the format of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) for scoping reviews.² In scoping reviews, data extraction is often referred to as 'charting the results,' and should provide a logical, descriptive overview of the relevant literature, which informs the research question.¹ Key study characteristics should also be clearly outlined. Given the breadth of most scoping reviews, a variety of study designs may be included.¹

Results should then be discussed critically, within the context of the wider, related literature and

any review limitations should be clearly explicated. Many scoping reviews may conclude with relevant recommendations for practice, policy and/or further related research. However, the search strategy is rarely comprehensive in scoping reviews and, usually, no critical appraisal, evidence synthesis or methodological quality appraisal are undertaken. Therefore, any potential recommendations for clinical practice must be carefully considered and properly contextualised.^{1,2}

Conclusion

Scoping reviews offer significant potential for healthcare but, as with all types of reviews, they must be clearly indicated and should always be undertaken and reported rigorously, using established guidelines.

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แนวทางสำหรับการทบทวนวรรณกรรมและรายงานแบบกำหนดขอบเขตในด้านการดูแลสุขภาพ

Paul Gill*

บทคัดย่อ: การทบทวนวรรณกรรมแบบกำหนดขอบเขตเป็นสิ่งที่ได้รับความนิยมมากขึ้นในวงการการดูแลสุขภาพ อย่างไรก็ตาม การทบทวนวรรณกรรมประเภทนี้ ยังถือว่าค่อนข้างใหม่ ซึ่งต่างจากการทบทวนวรรณกรรมอย่างเป็นระบบ ฉะนั้น จึงมีความไม่ชัดเจนว่าการทบทวนวรรณกรรมแบบกำหนดขอบเขตคืออะไร ควรดำเนินการเมื่อใด หรือควรรายงานอย่างไร บทบรรณาธิการนี้มีวัตถุประสงค์เพื่ออธิบายประเด็นที่มักมีความเข้าใจผิดในการทบทวนวรรณกรรมแบบกำหนดขอบเขต เหตุผลในการทบทวนวรรณกรรมแบบกำหนดขอบเขตอาจมีหลายประการ เช่น การทำแผนผังหรือการเชื่อมโยงแนวคิด เนื้อหาของวรรณกรรม (โดยเฉพาะ ในประเด็นที่กำลังพัฒนางานนั้นๆ) อธิบายมโนทัศน์หลัก ระบุปริมาณข้อมูลเชิงประจักษ์ที่มีอยู่ และบางครั้งอาจใช้เป็นขั้นตอนเบื้องต้นในการทบทวนวรรณกรรมอย่างเป็นระบบ อย่างไรก็ตาม แม้ว่าการทบทวนวรรณกรรมแบบกำหนดขอบเขตจะคล้ายคลึงกับการทบทวนวรรณกรรมอย่างเป็นระบบ แต่เหตุผลที่ดำเนินการอาจมีความแตกต่างกันและประเภทของข้อมูลเชิงประจักษ์ที่ใช้ก็มักแตกต่างกันด้วย สถาบันโจแอนนาบริกส์ (The Joanna Briggs Institute: JBI) ได้ตีพิมพ์แนวปฏิบัติสำหรับการดำเนินการและการรายงานการทบทวนวรรณกรรมแบบกำหนดขอบเขตในปี ค.ศ. 2020 เพื่อให้แน่ใจว่าการทบทวนวรรณกรรมนั้น มีความคงเส้นคงวาและเข้มงวดถูกต้องเชิงวิชาการ ดังนั้น ในการทบทวนกำหนดขอบเขตควรใช้แนวปฏิบัติดังกล่าว บทบรรณาธิการฉบับนี้ นำเสนอภาพรวมอย่างกระชับว่าเมื่อใดควรใช้การทบทวนวรรณกรรมแบบกำหนดขอบเขต และวิธีการจัดทำรายงานที่ควรจะเป็น

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คำสำคัญ: การทบทวนวรรณกรรมแบบกำหนดขอบเขต การทบทวนวรรณกรรมอย่างเป็นระบบ การวิจัยด้านสุขภาพ แนวปฏิบัติการทบทวนวรรณกรรม สถาบันโจแอนนาบริกส์

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