

# Over 1000 terms have been used to describe evidence synthesis: a scoping review

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10.1136/bmjebm-2024-113391

► Additional supplemental material is published online only. To view, please visit the journal online (https://doi.org/10.1136/bmjebm-2024-113391).

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To cite: Pollock D, Hasanoff S, Barker TH, et al. BMJ Evidence-Based Medicine Epub ahead of print: [please include Day Month Year]. doi:10.1136/ bmjebm-2024-113391

#### Abstract

Objective To inform the development of an evidence synthesis taxonomy, we aimed to identify and examine all classification systems, typologies or taxonomies that have been proposed for evidence synthesis methods. Design Scoping review.

Methods This review followed JBI (previously Joanna Briggs Institute) scoping review methodology and was reported according to PRISMA-ScR (Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews). Resources that investigated typologies, taxonomies, classification systems and compendia for evidence synthesis within any field were eligible for inclusion. A comprehensive search across MEDLINE (Ovid), Embase (OVID), CINAHL with Full-Text (EBSCO), ERIC (EBSCO), Scopus, Compendex (Elsevier) and JSTOR was performed on 28 April 2022. This was supplemented by citation searching of key articles, contact with experts, targeted searching of organisational websites and additional grey literature searching. Documents were extracted by one reviewer and extractions verified by another reviewer. Data were analysed using frequency counts and a basic qualitative content analysis approach. Results are presented using bar charts, word clouds and narrative summary. Results There were 15 634 titles and abstracts screened, and 703 full texts assessed for eligibility. Ultimately, 446 documents were

included, and 49 formal classification systems

# WHAT IS ALREADY KNOWN ON THIS TOPIC

- ⇒ There is a plethora of evidence synthesis types available to respond to the needs of policymakers, legislators and decision-makers across various disciplines.
- ⇒ The academic community has made many attempts to organise evidence synthesis through static classification systems which have not been able to respond to the methodological advances and approaches in the field.
- ⇒ The vast amount of evidence synthesis terms could be creating confusion for those that conduct and use evidence synthesis.

identified, with the remaining documents presenting structured lists, simple listings or general discussions. Included documents were mostly not field-specific (n=242) or aligned to clinical sciences (n=83); however, public health, education, information technology, law and engineering were also represented. Documents (n=148) mostly included two to three evidence synthesis types, while 22 documents mentioned over 20 types of evidence synthesis. We identified 1010 unique terms to describe a type of evidence synthesis; of these, 742 terms were only mentioned once. Facets that

### WHAT THIS STUDY ADDS

- ⇒ We identified 1010 terms describing evidence synthesis approaches and 15 dimensions that have been used to differentiate these from each other.
- ⇒ We suggest the need to create a dynamic and living taxonomy to harmonise evidence synthesis terminology and approaches to ensure an appropriate evidence synthesis approach is being conducted for a particular purpose.

# HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ The results provide an inventory of evidence synthesis classification systems and terms detailing distinct evidence synthesis types and their methods which will inform a taxonomy, standardised definitions and future meta-research on the harmonisation of evidence synthesis terms.

could usefully distinguish (ie, similarities and differences or characteristics) between evidence synthesis approaches were categorised based on similarity into 15 overarching dimensions. These dimensions include review question and foci of interest, discipline/field, perspective, coverage, eligibility criteria, review purpose, methodological principles, theoretical underpinnings/philosophical perspective, resource considerations, compatibility with heterogeneity, sequence planning, analytical synthesis techniques, intended product/output, intended audience and intended impact or influence.

Conclusion This scoping review identified numerous unique terms to describe evidence synthesis approaches and many diverse ways to distinguish or categorise review types. These results suggest a need for the evidence synthesis community to organise, categorise and harmonise evidence synthesis approaches and terminolog

#### Introduction

Trustworthy evidence syntheses are crucial for informing policy, legislation and decision-making across various disciplines.1 Evidence synthesis collates and combines individual studies through a rigorous and transparent approach to enable informed decisions.<sup>2</sup> There now exists numerous tailored evidence synthesis types, such as systematic reviews, scoping reviews or qualitative evidence synthesis, and these are designed to respond to different questions, demands and needs, supporting evidence-informed decision-making across different contexts, topics and fields.<sup>3 4</sup> This explosion in types has also presented confusion for researchers, policymakers, funders and others when choosing the appropriate evidence synthesis approach. This has led to scenarios where inappropriate evidence synthesis types have been used to inform a particular policy or knowledge needs, potentially resulting in misleading findings, which in turn may provide a weak or inadequate evidence base to inform decision-making.<sup>3 5 6</sup>

Given the significant resources required to undertake an evidence synthesis project, the first step in determining an appropriate synthesis type is critical, particularly given subsequent implications for both evidence transfer (the delivery of evidence to ensure people are 'aware of, have access to and understand the evidence' (pg. 83))<sup>7</sup> and evidence implementation (the uptake of evidence into routine practice).<sup>4 8</sup> Thus, enabling novice (and

experienced) researchers to ensure that they are undertaking an appropriate evidence synthesis approach to respond appropriately to a clinical or policy question carries broader strategic implications. <sup>9</sup> <sup>10</sup> As such, those embarking on an evidence synthesis project will want to ensure that they remain in line with methodological and reporting standards and techniques in addition to following an appropriate design that addresses the purpose of that type of evidence synthesis. <sup>9</sup> <sup>10</sup>

Previous classification systems have been developed in an attempt to provide clarity regarding differing evidence synthesis approaches.<sup>3</sup> 11 12 However, these efforts have largely not been adequately grounded in empirical evidence, and some have been criticised for incompleteness, terminological discrepancies and for not being responsive to the addition of new approaches.3 12 13 A taxonomy which has been grounded in evidence, driven by those that use evidence synthesis and is responsive to the changing environment within the field of evidence synthesis could be a useful resource for the evidence synthesis community. Such a taxonomy can enable researchers to make informed decisions about which evidence synthesis type is best suited to their purpose and support the use of transparent and rigorous methods to develop trustworthy evidence. We have received funding to develop a comprehensive, evidence-based and community-driven living evidence synthesis taxonomy.<sup>3</sup> In line with the principles of evidence-based research, <sup>14</sup> a prerequisite step in the development of this evidence synthesis taxonomy is to review what systems currently exist. As such, this scoping review aims to identify evidence synthesis types and previously proposed typologies, classification schemes or taxonomies that have guided evidence synthesis to date.

# **Methods**

This scoping review was conducted in accordance with the JBI (previously Joanna Briggs Institute) methodology for scoping reviews <sup>15</sup> and reported in line with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR). <sup>16</sup> An a priori protocol of our methods has been published. <sup>17</sup>

The PRISMA checklist, Enhancing transparency in reporting the synthesis of qualitative Research (ENTREQ) checklist, protocol deviations, search strategy, full-text exclusions, included studies, data extraction template and evidence synthesis terms that were translated are detailed within online supplemental file 1. A description of this project and all detailed extractions and supplementary materials are publicly available through Open Science Framework (OSF). A Standardised Data on Initiatives report has been developed and is publicly available (https://wikispore.wmflabs.org/wiki/Evidence\_Synthesis\_Taxonomy\_Initiative).

A list of definitions which underpin our review can be seen in box 1. Based on these definitions, the term 'classification systems' will encompass the following terms, 'typology', 'taxonomy' and 'compendia' for this review.

# **Review questions**

Our primary review question:

What typologies, taxonomies, classification systems or compendia have been proposed for categorising evidence synthesis methods?

Our secondary questions were:

- . What individual evidence synthesis types/approaches have been described in typologies, taxonomies and classification systems or compendia?
- ii. What are the characteristics (eg, type of document, field, engagement with knowledge user and number of evidence

# **Box 1 Definitions**

# **Evidence synthesis**

'Evidence synthesis is the interpretation of individual studies within the context of global knowledge for a given topic. These syntheses provide a rigorous and transparent knowledge base for translating research in decisions. As such, evidence syntheses can be thought of as the basic unit of knowledge used in tools such as a policy brief or clinical practice guideline'.<sup>2</sup>

#### Classification system

Classification system is used as an umbrella term in this review. Both a typology and a taxonomy are forms of classification. 'Classification systems are useful for organizing information and identifying important dimensions on which members of the class (in our case, research reviews) may vary'. <sup>12</sup>

# **Typology**

A typology uses theoretical or conceptual distinctions with the primary aim to simplify and order data so that they may be described in terms which make them comparable. 12 38

# **Taxonomy**

A taxonomy is a hierarchical classification, in which things are organised into groups or types, based on similarity.<sup>39</sup>

# Compendia

'A compendium is a compilation of knowledge about a particular subject ('compendia' is plural and 'compendial' is an adjective). This collection of knowledge plays a critical role in protecting public health, especially for medicines and other aspects of healthcare'. 40

#### **Facet**

This term describes concepts that the developers of previous classification systems used to distinguish review types (these could be similarities or differences) from one or another or described features, characteristics or properties of review types. Examples include review aim, purpose, methods or output.

# **Dimension**

We use the term 'dimension' to represent our groupings of facets. In this way, the definition for a dimension is very similar to that of a facet.

- synthesis) of these typologies, taxonomies and classification systems or compendia approaches?
- iii. What are the facets against which evidence syntheses have been classified or distinguished from one another?
- iv. What are the methodological approaches to the development of these typologies, taxonomies and classification systems?

### **Inclusion criteria**

According to JBI guidance on scoping reviews, a review question typically starts by specifying the PCC (Participants, Concept and Context) which are our eligibility criteria. <sup>15</sup> In this case, 'Participants' was not relevant to this review, as we investigated typologies, taxonomies, classification systems and compendia

for evidence synthesis. We therefore specify only Concept and Context below.

#### Concept

Documents that included classification systems, taxonomies, typologies, compendia, groupings or overviews of evidence synthesis methods and approaches were included. For inclusion, the document had to either detail a classification system or describe at least two types of evidence synthesis and include a definition and/or distinguishing characteristics between the types. Documents that discussed variations of the same type of evidence synthesis (ie, differences in scoping reviews) were included, as were empirical studies (such as methodological studies or scoping reviews that investigate methodology) evaluating differences in types of evidence synthesis. This included manuals and guidance for conducting evidence synthesis projects that have explored multiple evidence synthesis approaches, such as the JBI Manual for Evidence Synthesis of the Cochrane Handbook.<sup>20</sup>

#### Context

Any classification systems, such as typologies, taxonomies or compendia, were considered for inclusion across any context, discipline or field, including, but not limited to health-related disciplines, public health, clinical sciences, social sciences, environmental sciences, biosciences, engineering, policy, law and education.

### Types of sources

This scoping review considered a range of documents, such as discussion papers, commentaries, books, editorials, manuals, handbooks, library guides or formal guidance from major organisations and any other resources that describe different approaches to evidence synthesis and potentially provided a classification scheme of these different approaches.

# Patient and public involvement statement

This scoping review was conducted to inform a broader projectthe Evidence Synthesis Taxonomy Initiative (ESTI)-which aims to develop a living taxonomy.3 ESTI is supported by an executive steering group and an advisory group of over 150 experts in evidence synthesis across the globe. These experts include researchers, guideline developers, methodologists, health professionals, policymakers, patient partners, ontologists, peer-reviewers/ editors of journals and information scientists with an interest in methodology and evidence synthesis across various fields and disciplines. The ESTI advisory board has received progress reports and was involved in this scoping review by providing feedback on the development of the protocol and this report, search strategy, identification of eligible sources, data extraction form and in the interpretation of findings. Individuals from the executive or advisory team who made a substantial contribution and met the International Committee of Medical Journal Editors authorship requirements were eligible to be an author on this review.

# Search strategy

A search strategy was created in consultation with an expert health librarian (CP) and was peer-reviewed by another librarian using the Peer Review of Electronic Search Strategies guideline statement.<sup>21</sup> An initial exploratory search of MEDLINE (Ovid) was conducted to identify key articles on the topic. The terminology used within the articles was analysed and used to develop a full search strategy for MEDLINE (Ovid). This search was tested to ensure it picked up key articles<sup>4</sup> 13 22-24 which had been identified

by the team prior to the start of this review. The search strategy, including all identified keywords and index terms, was adapted for the following databases: Embase (Ovid), CINAHL with Full-Text (EBSCO), ERIC (EBSCO), Scopus, Compendex (Elsevier) and JSTOR. Co-citations of identified seminal papers were included by running these through Co-cites<sup>4</sup> 13 22-24 and searched and screened in Covidence (Melbourne, Australia). Forward citation screening was not performed due to the likelihood of high citation counts of seminal discussion and guidance papers.

The following websites were manually searched by one reviewer (SH) to identify any relevant resources: Cochrane, JBI, Agency for Healthcare Research and Quality (AHRQ), Collaboration for Environmental Evidence, Campbell Collaboration, Evidence for Policy and Practice Information Centre and York University Centre for Reviews and Dissemination. A further supplementary search of the former European Network for Health Technology Assessment, Health Technology Assessment international, International Network of Agencies for Health Technology Assessment and its database and Adelaide Health Technology Assessment was conducted, and no further eligible documents were identified. Both dimensions.ai and Google.com were also searched. Searches run on Google used an incognito window to reduce algorithmic biases in Adelaide, Australia (07/03/2023) and the first 100 results of each search were screened. The ESTI Advisory Board also identified articles from their personal repositories, and those that met inclusion criteria were included. All search strategies and results are submitted with this report within online supplemental file 1.

There were no search exclusions based on language, date or publication status (ie, published, unpublished, in press, in progress, preprint). All attempts were made to translate eligible documents not in English through using DeepL and/or Google Translate, or by a person fluent in the language.

# Study selection

Following the search, all identified studies were deduplicated using the Deduplicator tool (Bond University, Queensland, Australia).<sup>26</sup> This file was then uploaded into Covidence (Veritas Health Innovation, Melbourne, Australia). Pilot testing was conducted by all screeners at both the title and abstract and full-text screening stages. Screeners (DP, SH, HK, BC, ZM) independently reviewed 50 titles and abstracts, and screening started once >70% agreement was reached. 10 full-text articles were then reviewed independently by screeners (DP, SH, HK, BC, ZM), and once >70% agreement occurred, full-text screening commenced. Following a pilot test, each title and abstract was independently screened by two people. Potentially relevant studies were then retrieved in full. Two independent reviewers assessed full-text studies and excluded studies that did not meet the inclusion criteria. Any disagreements between the reviewers were resolved through discussion or by a third reviewer (DP, SH, ZM).

#### **Data extraction**

A standardised extraction form was designed for this review. An initial piloting of this form was performed by data extractors (SH, ZM, DP) using the same five full-text documents to calibrate and test the review form. These extractors slightly modified the data extraction tool after reviewing the included studies in the early stages of extraction to capture additional details. Prior to extraction, each extractor (CV, CSte, MZ, JC, LAA, DE, CStr, MKo, TC, KMS-U-R, P-ET, RMJ, THB, DP, ZM, SH) was required to extract two documents which were then checked by DP. If there were discrepancies in extractions, DP would send feedback and ask for a further piloting of two documents until there was

consistency. Approximately half of the included records were extracted by two independent reviewers in Covidence, with the other half completed by one reviewer. All eligible documents were then verified by a member of the authorship team (DP, THB, SH, ZM) during the consolidation stage which occurred in Microsoft Excel. This process ensured that each extraction for each record was reviewed or checked by at least two people.

The data were extracted at two levels: (1) information regarding the record and classification system and (2) the evidence synthesis approaches detailed within the included document.

The reviewers regularly discussed the data extraction and disagreements were resolved through discussion. Authors of papers were not contacted to request missing or additional data as we were not extracting results.

#### Data analysis

This review used established methods for conducting analysis in scoping reviews<sup>27</sup> and used frequency counts (conducted through Excel) and an inductive basic qualitative content analysis approach (conducted through Excel, Microsoft Word and group discussion).

The extracted terms of each evidence synthesis type that were identified within an included document were counted once per document. This approach was not intended to calculate how many times an evidence synthesis type was mentioned within each study, but to gauge how many evidence synthesis terms are being used within the literature, and the most common types mentioned within the body of included documents. Plural versions of extracted evidence synthesis terms were combined, for example, 'scoping review' and 'scoping reviews'. However, evidence synthesis terms that were similar were not combined, for example, 'scoping review' and 'scoping study' were reported as individual terms to remove any subjectivity in coding and classifying evidence synthesis approaches. Furthermore, 'systematic reviews' and 'systematic reviews of qualitative evidence' were considered two distinct terms.

To determine the dimensions of evidence synthesis, an inductive basic qualitative content analysis of the extracted facets was conducted. This involved reading the relevant extracted facets, performing open coding and grouping facets based on their similarity into dimensions. We grouped the extracted information on the facets of evidence synthesis to the appropriate dimension through in-person collaboration and teamwork (ZM, DP, SH). The allocation of each individual facet to each dimension was individually checked by ZM, DP or SH for agreement. The team agreed that no facet would be categorised into multiple dimensions; however, we acknowledge that there could be overlap between dimensions.

The authors of this scoping review are expert evidence-based healthcare methodologists with vested interests in creating a living evidence synthesis taxonomy. Those authors undertaking analysis (ZM, DP and SH) acknowledged and actively questioned this perceived interest while undertaking categorisation of the dimensions. Our approach aligns with the current methodological approach of scoping reviews, which is to provide an overview, map or scope of the available evidence. The inductive basic qualitative content analysis was developed to meet the needs of those conducting scoping reviews with textual data and was developed to not be overly interpretive or reductivist. Our approach within this scoping review when determining the dimensions of evidence was not to create new concepts, or narrow concepts down to their most basic parts, but to categorise based on similarity of meaning based on the available evidence.

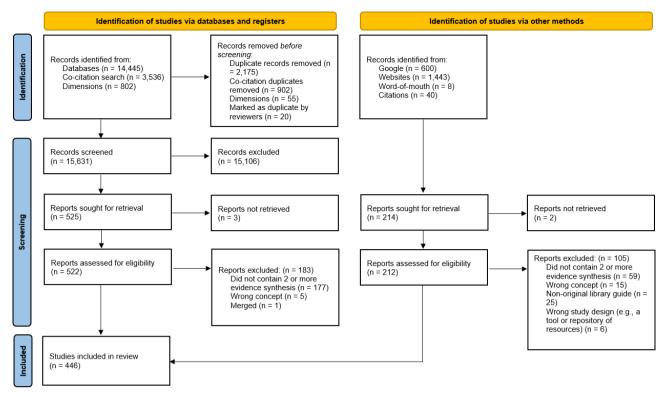


Figure 1 PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) flow diagram.

#### **Results**

#### Search results

A search of seven databases and co-citations of key articles yielded 18 783 records. After removing duplicates, 15 634 records were screened in Covidence for title and abstract. After excluding irrelevant records, 542 reports were retrieved and screened by at least two independent reviewers. Two records were unable to be screened for full text inclusion as they were unable to be retrieved.

Review of websites identified a total of 1443 documents that were screened by one reviewer (SH), and 37 of these were screened for their full text in Microsoft Excel by two reviewers (SH and DP). The AHRQ website housed a total of 1059 of these results.

We identified 97 sources through Google.com to be screened at full text after duplicates were removed manually. A further 32 documents were cited within included documents when screened at full text. The results of the search and inclusion are presented in a PRISMA 2020 flow diagram (figure 1). This process resulted in 446 articles that met the eligibility criteria and were thus included in the review. Of these, 11 articles required translation to English.

### **Characteristics of included documents**

This scoping review classified documents into classification systems (n=49), structured lists (n=171), simple listings (n=11) and general discussions (n=215). Documents could only be categorised into one classification. The name and definition of each classification and number of documents are included in table 1.

There were diverse types of documents included within this review. These included discussions or commentaries (n=215), evidence synthesis projects (n=53), methodological studies (n=44), books and book chapters (n=31), manuals/handbooks (n=23), editorials (n=22), library guides (n=19), guidance (n=9), web pages (n=8), letters to the editors (n=7), protocols (n=3), white papers (n=2) and others (n=10). Other documents included primary research, a guideline, a methodological brief, a poster, a preface, a preprint, a report, a resource supplement, a toolkit and a working paper.

Most documents within this review were not field specific (n=242) or were aligned to clinical sciences (n=83) or public health (n=52). Additional documents were from education (n=12),

Table 1 Classification of documents			
Classification	Definition	Number of included documents per classification	
Classification system	These articles self-identified or were considered by the review team as a classification system (such as a taxonomy, typology).	49	
Structured lists	These articles compared evidence synthesis types together and could have been presented within text, tables, figures or matrices.	171	
Simple listings	These articles included listings of evidence synthesis types with no further elaboration.	11	
General discussions	These articles included mentions of evidence synthesis types briefly within the narrative of the included document but did not attempt to provide further elaboration or comparison.	215	
Total		446	

information technology/information systems (n=10), engineering (n=8), environmental sciences (n=8), social sciences (n=8), health sciences (n=8), preclinical (n=3), law, business and public policy (n=5), animal and veterinary medicine (n=3), health technology assessment (n=2), emerging technologies (n=1) and urban planning (n=1).

There were 75 documents which were formally developed or approved by 37 organisations within this review, including JBI (n=11), Cochrane Collaboration (n=11), Campbell Collaboration (n=2), UNICEF (n=8) and AHRQ (n=6). There was also a small number of professional societies (eg, American Dental Association), for-profit organisations (eg, DistillerSR, Covidence), government organisations (eg, Ministry of Health Brazil), international agencies (eg, UNICEF and WHO) and methodological groups (eg, GRADE) endorsing these documents.

There were 35 documents that included knowledge user engagement within their research conduct. One additional article detailed plans to engage with knowledge users through an international survey investigating their views on rapid reviews of medical tests. Most documents (n=410) did not describe any mention of knowledge user engagement. There are 148 documents which described two to three different evidence synthesis types, and 22 documents mentioned over 20 evidence synthesis types. A visual presentation of this can be seen in online supplemental materials.

#### Terms to describe evidence synthesis approaches

The review team extracted 3624 terms to describe types of evidence synthesis, of these, 38 were translated to English. In total, as represented in the word cloud (figure 2), there were 1010 evidence synthesis terms identified within the included documents. Each individual term was only counted once per document. Of these, the term 'systematic review' appeared in 346 documents. The next

Figure 2 Word cloud of identified evidence synthesis terms.

common terms to appear within the eligible documents included 'scoping reviews' (n=159), 'meta-analysis' (n=124), 'rapid reviews' (n=116) and 'narrative reviews' (n=116). In conjunction with the term 'systematic review' being the most common, there were an additional 158 terms describing specific systematic review types, for example, 'systematic reviews of trials', 'Systematic Reviews of empirical bioethics research' or 'systematic reviews (mixed methods)'. The large majority (n=742) of individual evidence synthesis terms, such as 'background reviews', 'bibliographic analysis' and 'methods reviews' were only coded once within the 446 included documents. A full list of these terms and their associated extractions can be found in the team's OSF- SPECTRAL database.

Within identified classification systems, the review team identified 882 occurrences of terms to describe types of evidence synthesis, reduced to 355 unique evidence synthesis terms. A word cloud of these terms can be found in online supplemental materials. Of these, the term 'systematic review' appeared in 36 documents. The next most common terms to appear within the eligible documents included 'scoping reviews' (n=27), 'meta-analysis' (n=24), 'umbrella reviews' (n=22) and 'Literature reviews' (n=21). In conjunction with the term 'systematic review' being the most common, there were an additional 62 terms describing specific systematic review types, for example, 'Systematic Review of Quantitative Evidence' or 'Systematic review of Epidemiology Studies (mixed methods)'. The large majority (n=243) of individual evidence synthesis terms, such as 'Theory review', 'preclinical systematic reviews' and 'Review of associated risk factors' were only coded once within the 49 identified classification system. A full list of these terms and their associated extractions can be found in the team's OSF-SPECTRAL database.

### **Characteristics of classification systems**

This scoping review identified 49 classification systems of evidence synthesis. A detailed table of the 49 classification systems and how they were developed can be found in online supplemental table 1. Classification systems were mostly discussed within commentaries/discussion articles (n=25). However, methodological studies (n=8), evidence synthesis (n=6), books and book chapters (n=4), a manual/handbook, a library guide, protocol, a research white paper and a working paper were also identified.

The fields of the classification systems were varied, and most were not field specific (n=34). However, there was representation from information technology/information systems (n=6), public health (n=3), education (n=2) and individual documents from clinical sciences, engineering, environmental sciences and urban planning.

Four documents described some form of evaluation of their taxonomy. Cooper's<sup>29</sup> assessment included two reviewers reading seven reviews independently, and then describing them according to the six characteristics and categories. In Cooper's<sup>30</sup> taxonomy paper, two psychology graduates categorised 37 literature reviews in psychology and education, which were then assessed for reliability. Questionnaires were also sent to review authors to gather feedback on Cooper's taxonomy. Further evaluations included using a descriptive review<sup>31</sup> and through a methodological study.<sup>32</sup>

Most documents were not formally developed or approved by any organisation (n=42). Other documents were endorsed by JBI (n=2), the Campbell Collaboration (n=2), the AHRQ (n=2) and the University of Florida (n=1).

#### Names of classification systems

There was a vast array of terminologies identified within this scoping review to describe a classification system. Seven documents did not label their classification systems. The most common terms included were typology (n=13) and taxonomy (n=6), with other terms identified represented within online supplemental materials.

### Methodological approaches to creating classification systems

There were 19 documents which did not describe any methodological approach. There were 24 documents identified as methodological studies such as critical reviews, scoping reviews, integrative reviews, descriptive reviews and initial and informal scoping searches. Six documents developed their classification system based on consensus and discussion, one that used previous study of the literature and another that conducted primary research.

The majority (n=43) of classification systems did not include any knowledge user engagement. Five documents included knowledge users, three from the same author<sup>33–35</sup> who performed key informant interviews with producers of evidence syntheses. Cooper<sup>29</sup> conducted in-depth interviews with 14 scholars in diverse fields of education/psychology who were conducting literature reviews, and conducted a structured questionnaire that was completed by 68 scholars who had published reviews of research literature. One author<sup>36</sup> included knowledge users within multiple phases of their development of a typology of evidence and gap maps. Knowledge user engagement included discussions with internal staff at Campbell Collaboration, knowledgeable friends and members of the public. One evidence source by Kastner *et al*<sup>37</sup> planned to hold further meetings with knowledge users.

### Dimensions to categorise evidence synthesis

There were 94 documents which provided facets of evidence synthesis, resulting in 475 extracted facets, of which 398 were unique. Our review team grouped these into 15 overarching dimensions to categorise or distinguish evidence synthesis types. It is important to note that some previous authors have differentiated reviews by evidence synthesis type or label, which often encompasses the foci of interest, for example, 'effectiveness reviews' or 'reviews of diagnostic test accuracy'. As we were interested in extracting the facets for the types (rather than the type of evidence synthesis as a distinguisher), we did not extract the evidence synthesis types as facets but as terms to describe an evidence synthesis approach. As such, the 'foci of interest' dimension is likely under-represented despite its prominence in existing formal groupings.

The overarching dimension name, the number of extractions and an example of the verbatim extractions of each facet can be seen in table 2. The most frequent facets were combined under our dimension of sequence planning (n=86). The second most common facet was related to our dimension of review purpose (n=62), followed by approaches (n=57) and analytical techniques (n=50). The list of all organised facets and dimensions can be located within the projects OSF page.

#### **Discussion**

This scoping review has provided a comprehensive examination of 446 documents which have compared, contrasted or grouped evidence synthesis approaches together. The results highlight the volume of terms and types of evidence synthesis and detail the attempts by the academic community to try to organise these into classification systems. To our knowledge, this is the most comprehensive collation of evidence synthesis classification systems.

Traditionally, these classification systems are seen as beacons of clarity providing guidance among the numerous evidence synthesis types. However, these groupings are often static, and unless specifically updated by the authors, can become out of date with the rapid pace of development of methods.<sup>3</sup> <sup>13</sup> Our scoping review highlights that these classification systems are not always developed using an empirical approach, rarely involve knowledge users and have been infrequently evaluated to assess if there is acceptance among the broader academic community that their formal grouping is appropriate and accurate.

Our scoping review identified 1010 different terms used to describe an evidence synthesis type, and 355 terms used solely within classification systems. This may not be an unexpected finding given we considered different disciplines and fields. Our review supports previous work identifying that there is a lack of consensus in evidence synthesis terminology. 12 13 24 Littel 12 described this confusion as the jingle/jangle fallacy, in which the jingle fallacy is the belief that two items are the same because they have the same name when they are indeed different. For example, many projects in which the term 'systematic review' has been used are not congruent with the definition of systematic review-which requires explicit, transparent and reproducible methods. The jangle fallacy applies in which two identical things are seen as different when given different names. For example, 'scoping review' and 'scoping study'. Our results suggest a need to harmonise the language of evidence synthesis. Future work on harmonisation will require consensus among those who will be applying these methods and the production of standardised definitions. Our review highlighted further concerns regarding a lack of clarification around what is a type of evidence synthesis, a type of synthesis (or analytical method) or an output or product that is produced from evidence synthesis. For example, 'meta-analysis' is now a well-established synthesis method that can be undertaken within a systematic review; however, many documents within this scoping review suggested meta-analysis as a type of evidence synthesis and used it as a synonym for 'systematic review'. Future harmonisation efforts should align with the ideas put forward by Evidence Synthesis International, where it is recognised that consistent and shared standards, terminology and methodology across the field are ideal, while still acknowledging the importance of 'fit for purpose' methods for diverse information needs. 46

The benefits of organising evidence synthesis into classification systems and developing a taxonomy are disputed. One criticism of classification systems is that they attempt to impose 'artificial structures on phenomena that may not fit neatly into prescribed categories' (P.6). 12 This is further supported by both Cooper<sup>30</sup> and Gough et al, 13 who both state that a taxonomy may not be possible given too much overlap in evidence synthesis. Gough et al<sup>13</sup> further describe that due to the rate of new evidence synthesis, a taxonomy may not be helpful, although they do suggest a typology as a plausible solution. We acknowledge that having one definitive term or authoritative definition may not be helpful when working across fields. However, we do believe that a taxonomy will inform consistent communication by supporting translation of these terms. Homonyms present a challenge in taxonomy development; however, if a particular community uses the term 'mapping review' in a particular way, while a different community uses it in another way, then the differences can be more readily identified within a taxonomy allowing a third party to better understand the differences in the approach by matching terms with different approaches/concepts. A similar challenge is synonyms, where a particular community may use the term 'umbrella review' and another uses the term 'overview' while

	Number of facets for each	
Dimension name	dimension Unique (total)	Example
Review question and foci of interest	31 (43)	Question type: descriptive, normative, observational/relational/causal theoretical. <sup>35</sup>
Discipline or field that has been used to distinguish evidence synthesis types	2 (2)	Applicability scope; Humanities, management research, social sciences, healthcare literature, traditional social science, business management, economic studies, medical and biomedical research, medical research, psychology, biomedical, <sup>36</sup>
Perspective (neutral stance to polemic)	4 (5)	Perspective on the literature: perspective pertains to the tone of the discussion section. Reviewers either attempt to provide a neutral perspective that involves exposing many sides to an issue or espouse a position that may involve limiting the information presented. 37
Coverage of the evidence synthesis	32 (34)	Coverage: exhaustive; representative; purposive; selective and incomplete. <sup>9</sup>
Inclusion criteria/eligibility criteria/data sources considered	35 (37)	Data types: quantitative primary studies; qualitative primary studies; individual participant data; previous reviews. <sup>9</sup>
Review purpose	55 (62)	Primary goals of reviews with respect to theory: describing, understanding, testing theory, explaining. 41
Methodological principles	50 (57)	Synthesis: configuring (interpretation largely during the synthesis to build meaning); synthesis=aggregating (interpretation largely before and after synthesis to frame the question and make use of the findings). 41
Theoretical underpinnings/philosophical perspective	14 (14)	Epistemological and ontological continuum: interpretivism to post- positivism. <sup>29</sup>
Resource considerations	31 (38)	Resources (personnel, funding, effort). <sup>30 31</sup>
Compatibility with heterogeneity	4 (4)	Heterogeneity: lots to little (whether the data synthesised are homogeneous or heterogeneous). <sup>42</sup>
Sequence planning	76 (86)	Methodology according to SALSA (search, appraisal, synthesis and analysis). <sup>43</sup>
Analytical techniques to synthesise the evidence	46 (50)	Methods for synthesising/analysing findings: narrative summary; content analysis/frequency analysis; content or thematic analysis; statistical methods (meta-analytical techniques); narrative synthesis; content analysis or interpretive methods; mixed methods approach; content analysis or critical interpretive methods. <sup>28</sup>
Intended product/output	9 (9)	Products: narrative expression and summary; tables, charts, graphical displays, diagrams and maps; theory, theoretical/conceptual frameworks or conceptual maps; mathematical scores; statements of generalisability; a definition; a report written for decision-makers. <sup>32</sup>
Intended audience for whom the evidence synthesis type has been conducted.	7 (8)	Audience and purpose (academics, designers of interventions, policymakers/practitioners, commissioners of research). <sup>44</sup>
Intended impact or influence of the evidence synthesis product	15 (26)	Impact: enlightenment to instrumental. <sup>45</sup>

referring to the same underlying approach. However, a taxonomy can help in these instances to match these terms as synonyms both referring to the same underlying concepts. We have put forward the case for developing a living evidence synthesis taxonomy elsewhere.<sup>3</sup>

Some well-established typologies have primarily focused on the differences of methods of review types such as the work described by Grant and Booth who proposed the SALSA (search, appraisal, synthesis and analysis of evidence) framework<sup>22</sup> or typologies based on review purpose.<sup>4</sup> In our review, we identified that Littell developed the most extensive classification system.<sup>12</sup> Littell's classification scheme includes 10 'dimensions' (thereby influencing our own thinking) to provide flexibility when managing the complexity of evidence synthesis.<sup>12</sup> Our review identified 15 dimensions of difference after organising 476 extracted facets in which 398 were unique. Although these dimensions may provide a useful basis to determine properties of evidence synthesis types to group them into classes, further work is required. We do not, therefore, necessarily recommend that all 15 dimensions should

be used in any future development of classification systems for evidence synthesis.

This scoping review boasts numerous strengths, most noticeably its comprehensiveness. It offers an inventory of evidence synthesis types developed through rigorous methods. These methods included extensive database searches, supplementary searching methods and consistent liaison with experts throughout the process.

### Strengths and limitations

This review is not exempt from limitations. One notable challenge was the high level of interpretation required by the authors during data extraction. Given the nature of this data being complex and diverse, there is a risk of subjective biases influencing the interpretation of findings and potentially errors within the extraction process. However, our team did attempt to mitigate these errors through double-checking of the data and frequent discussion as a team. There is also a risk that the extractions may not reflect the true interpretation of the original authors. This is particularly

pertinent for the extraction and analysis of data which has been conducted in English and not in the language of the original author.

Additionally, we may not have captured all relevant documents. For example, the eligibility criteria were limited to documents which described at least two types of evidence synthesis, as we wanted to identify how authors were compared, contrasted and classified between review types. However, this could have missed documents which may have provided extensive detail describing one evidence synthesis type. Furthermore, by not including documents with only one evidence synthesis, the estimate of 1010 terms could be under-representing the true number of terms.

Additionally, the review's search strategy may not have captured all the articles we classified as 'general discussion', which are those that simply mentioned two or more evidence synthesis types without a formal classification system. This limitation could be amplified as we made an ad hoc decision to exclude one database (The Lens due to non-relevant results) and not perform forward or backward citation searching systematically on all included documents.

#### Implications for research

The findings of this review suggest important implications for future research. The results provide an inventory of evidence synthesis classification systems and terms detailing distinct evidence synthesis types and their methods, which can then inform the development of a comprehensive online and publicly available taxonomy and resource of evidence synthesis methods and methodologies. This work will also inform future metaresearch on the harmonisation of evidence synthesis terms and in the development of standardised definitions which will support consistent approaches. This scoping review and ESTI have already been flagged as being critical in the development of future iterations of the 'right review' tool. <sup>9</sup>

# Conclusion

This scoping review identified many individual terms and different ways of classifying evidence synthesis. The review results include an inventory of classification systems, dimensions of difference, evidence synthesis types and their methods. These findings represent critical and comprehensive foundational work that seeks to inform a long-awaited initiative designed to facilitate the organisation of evidence synthesis. The results of this review will ultimately contribute to the development of a living taxonomy, a comprehensive online and publicly available resource of evidence synthesis methods designed to support reviewers to identify appropriate evidence synthesis approaches for their purpose and situation. Ideally, this work will serve to ensure more appropriate, trustworthy evidence is generated to inform policy and practice globally.

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Funding ZM is supported by a National Health and Medical Research Council (NHMRC) Investigator Grant (1195676). This grant also supports DP and SH to perform research work of the Evidence Synthesis Taxonomy Initiative. ACT is funded by a Tier 1 Canada Research Chair in Knowledge Synthesis for Knowledge Users. CStr is a recipient of the Canadian Institutes of Health Research's Canada Graduate Scholarship (Doctoral) and the Pierre Elliott Trudeau Foundation Doctoral Scholarship. MZ is supported by the Fonds de Recherche du Québec-Santé (#299965), and the Canadian Institute of Health Research (CIHR) Banting Post-doctoral Fellowship (#509780).

Patient and public involvement Patients and/or the public were involved in the design, or conduct, or reporting, or dissemination plans of this research. Refer to the Methods section for further details.

Patient consent for publication Not applicable.

Ethics approval Not applicable.

Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement Data are available in a public, open access repository. A description of this project and all detailed extractions and supplementary materials are publicly available through Open Science Framework (OSF).

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#### References

- 1 Schünemann HJ, Reinap M, Piggott T, et al. The ecosystem of health decision making: from fragmentation to synergy. Lancet Public Health 2022;7:e378–90.
- 2 Evidence Synthesis International. What is evidence synthesis. 2022 Available: https://evidencesynthesis.org/what-is-evidence-synthesis/
- 3 Munn Z, Pollock D, Barker TH, et al. The Pandora's Box of Evidence Synthesis and the case for a living Evidence Synthesis Taxonomy. BMJ Evid Based Med 2023;28:148–50.
- 4 Munn Z, Stern C, Aromataris E, et al. What kind of systematic review should I conduct? A proposed typology and guidance for systematic reviewers in the medical and health sciences. BMC Med Res Methodol 2018:18:5.
- 5 Ioannidis JPA. The Mass Production of Redundant, Misleading, and Conflicted Systematic Reviews and Meta-analyses. *Milbank Q* 2016:94:485–514
- 6 Campbell JM, Kavanagh S, Kurmis R, et al. Systematic Reviews in Burns Care: Poor Quality and Getting Worse. J Burn Care Res 2017;38:e552-67.
- 7 Munn Z, Stern C, Porritt K, et al. Evidence transfer: ensuring end users are aware of, have access to, and understand the evidence. Int J Evid Based Health: 2018:16:83-9.
- 8 Bauer MS, Kirchner J. Implementation science: What is it and why should I care? *Psychiatry Res* 2020;283:112376.
- 9 Amog K, Pham B, Courvoisier M, et al. The web-based "Right Review" tool asks reviewers simple questions to suggest methods from 41 knowledge synthesis methods. J Clin Epidemiol 2022;147:42–51.
- 10 Clyne B, Sharp MK, O' Neill M, et al. An international modified Delphi process supported updating the web-based "right review" tool. J Clin Epidemiol 2024;170:111333.
- 11 Sutton A, Clowes M, Preston L, et al. Meeting the review family: exploring review types and associated information retrieval requirements. Health Info Libraries J 2019:36:202–22.
- 12 Littell JH. Conceptual and practical classification of research reviews and other evidence synthesis products. Campbell Syst Rev 2018;14:1–21.
- 13 Gough D, Thomas J, Oliver S. Clarifying differences between review designs and methods. Syst Rev 2012;1:28.
- 14 Robinson KA, Brunnhuber K, Ciliska D, et al. Evidence-Based Research Series-Paper 1: What Evidence-Based Research is and why is it important? J Clin Epidemiol 2021;129:151-7.
- 15 Peters MDJ, Marnie C, Tricco AC, et al. Updated methodological guidance for the conduct of scoping reviews. JBI Evid Synth 2020;18:2119–26.
- 16 Tricco AC, Lillie E, Zarin W, et al. PRISMA Extension for Scoping Reviews (PRISMA-ScR): Checklist and Explanation. Ann Intern Med 2018;169:467–73.
- 17 Munn Z, Pollock D, Price C, et al. Investigating different typologies for the synthesis of evidence: a scoping review protocol. JBI Evid Synth 2023:21:592–600.
- 18 Pollock D, Munn Z. Evidence synthesis taxonomy initiative. OSF 2022. Available: https://osf.io/kep8c/
- 19 Aromataris E, Munn Z, eds. *JBI manual for evidence synthesis*. Adelaide: IBI 2020
- 20 Higgins JPT, Thomas J, Chandler J, et al. Cochrane handbook for systematic reviews of interventions. 2nd edn. Newark: John Wiley & Sons, Incorporated, 2019.
- 21 McGowan J, Sampson M, Salzwedel DM, et al. PRESS Peer Review of Electronic Search Strategies: 2015 Guideline Statement. J Clin Epidemiol 2016:75:40–6.
- 22 Grant MJ, Booth A. A typology of reviews: an analysis of 14 review types and associated methodologies. *Health Info Libr J* 2009;26:91–108.
- 23 Tricco AC, Tetzlaff J, Moher D. The art and science of knowledge synthesis. J Clin Epidemiol 2011;64:11–20.

- 24 Gough D, Thomas J, Oliver S. Clarifying differences between reviews within evidence ecosystems. Syst Rev 2019;8:170.
- 25 Veritas Health Innovation. Covidence systematic review software. Melbourne. Australia. 2023.
- 26 Institute for Evidence-Based Healthcare. Systematic review accelerator: deduplicator. Queensland, Australia Bond University; 2023.
- 27 Pollock D, Peters MDJ, Khalil H, et al. Recommendations for the extraction, analysis, and presentation of results in scoping reviews. JBI Evid Synth 2023:21:520–32.
- 28 Arevalo-Rodriguez I, Moreno-Nunez P, Nussbaumer-Streit B, et al. Rapid reviews of medical tests used many similar methods to systematic reviews but key items were rarely reported: a scoping review. J Clin Epidemiol 2019;116:98–105.
- 29 Cooper HM. A taxonomy of literature reviews. National Institute of Education, 1985.
- 30 Cooper HM. Organizing knowledge syntheses: A taxonomy of literature reviews. *Knowledge in Society* 1988;1:104–26.
- 31 Paré G, Trudel M-C, Jaana M, et al. Synthesizing information systems knowledge: A typology of literature reviews. Inf. Manag 2015;52:183–99.
- 32 Schryen G, Wagner G, Benlian A, et al. A knowledge development perspective on literature reviews: validation of a new typology in the is field. Communications of the Association for Information Systems; 2020.46.
- 33 Hartling L, Guise J-M, Kato E, et al. A taxonomy of rapid reviews links report types and methods to specific decision-making contexts. J Clin Epidemiol 2015;68:1451–62.
- 34 Hartling L, Guise JM, Kato E. EPC methods: an exploration of methods and context for the production of rapid reviews. Rockville (MD): Agency for Healthcare Research and Quality (US); 2015. Available: https://www.ncbi.nlm.nih.gov/books/NBK274092/
- 35 Hartling L, Guise JM, Hempel S. EPC Methods: AHRQ End-User Perspectives of Rapid Reviews. Rockville (MD): Agency for Healthcare Research and Quality (US); 2016. Available: https://www.ncbi.nlm.nih.gov/books/NBK362003/
- 36 White H, Albers B, Gaarder M, et al. Guidance for producing a Campbell evidence and gap map. Campbell Syst Rev 2020;16:e1125.
- 37 Kastner M, Antony J, Soobiah C, et al. Conceptual recommendations for selecting the most appropriate knowledge synthesis method to answer research questions related to complex evidence. J Clin Epidemiol 2016;73:43-9.
- 38 McKinney JC. Typification, Typologies, and Sociological Theory. Social Forces 1969;48:1.
- 39 Marradi A. Classification, typology, taxonomy. *Qual Quant* 1990:24:129–57.
- 40 The United States Pharmacopeial Convention. Compendium, compendia, compendial: clearing up the mystery of these terms. 2017. Available: https://qualitymatters.usp.org/compendium-compendia-compendial-clearing-mystery-these-terms
- 41 AndersonLM, Oliver SR, Michie S. Investigating complexity in systematic reviews of interventions by using a spectrum of methods. *J Clin Epidemiol* 2013;66:1223–9.
- 42 Barnett-Page E, Thomas J. Methods for the synthesis of qualitative research: a critical review. BMC Med Res Methodol 2009;9:59.
- 43 Chambergo-Michilot D, Diaz-Barrera ME, Benites-Zapata VA. Scoping reviews, umbrella reviews and focused mapping review synthesis: methodological aspects and applications. *Rev Peru Med Exp Salud Publica* 2021;38:136-42.
- 44 Booth A, Noyes J, Flemming K. Structured methodology review identified seven (RETREAT) criteria for selecting qualitative evidence synthesis approaches. J Clin Epidemiol 2018;99:41–52.
- 45 Gough D, Thomas J, Oliver S. An introduction to systematic reviews. 2017:1–352.