

ORIGINAL ARTICLE

A scoping review found increasing examples of rapid qualitative evidence syntheses and no methodological guidance

Fiona Campbell^{1,*}, Laura Weeks², Andrew Booth¹, David Kaunelis², Andrea Smith²

¹School of Health & Related Research (SchARR), University of Sheffield, Regent Court, 30 Regent Street, Sheffield S1 4DA, UK

²Canadian Agency for Drugs and Technologies in Health, Ottawa, Ontario K1S5S8, Canada

Accepted 28 May 2019; Published online 21 June 2019

Abstract

Objectives: The objective of the study was to identify existing methodological guidance for the conduct of rapid qualitative evidence syntheses and examples of rapid qualitative evidence syntheses to describe the methods used.

Study Design and Setting: We conducted a systematic scoping review. We searched MEDLINE, CINAHL, gray literature, including PROSPERO, with no date limits and solicited examples through experts and researchers in the field.

Results: We found no methodological guidance to direct the conduct of rapid qualitative evidence synthesis and 15 examples including 13 completed reviews and two protocols. Diverse methods to abbreviate the review process were followed, which largely mirror methods developed for rapid reviews of clinical effects. Abbreviated search strategies, including date and language restrictions, were common, as was the use of a single reviewer for screening, data extraction, and quality appraisal. Descriptive approaches to synthesis, such as thematic synthesis, were more common than interpretive approaches, such as metaethnography.

Conclusion: There is a need to develop and explore methods for the synthesis of qualitative research that balance the need for rapidity with rigor. In the meantime, providing details on the methods used, shortcuts made, and the implications of such methodological choices, together with collective sharing of innovations, becomes more important under increased time constraints. © 2019 Elsevier Inc. All rights reserved.

Keywords: Rapid reviews; Qualitative evidence synthesis; Review methods; Scoping review; Systematic review; Policy; Knowledge mobilization

1. Background

The past decade has witnessed the proliferation of methodological literature on, and examples of, Qualitative Systematic Reviews or Qualitative Evidence Synthesis (QES). QES is an umbrella term that refers to the methods used to search, select, and analyze findings from a set of primary qualitative research studies that relate to a specific topic or focus to arrive at new or enhanced understanding about the phenomenon under study [1].

Multiple factors have stimulated recent interest in the synthesis of qualitative studies. First, decision makers are recognizing the potential usefulness of, and distinctive contribution of, qualitative research. Qualitative evidence enables insights into the contexts that shape the use of,

and therefore the effectiveness of complex interventions, and helps to understand the acceptability and feasibility of interventions, the value of outcomes to health service users, and the impact of interventions on equity and human rights [2,3]. Within health technology assessment (HTA), this interest in qualitative research reflects a policy imperative to ensure that the needs, preferences, and experiences of patients are central to decisions on technologies, treatments, or service redesign [4]. Furthermore, a QES can inform, enhance, extend, or supplement reviews addressing intervention effectiveness [1]. As the influence of the evidence-based practice agenda increases, so too comes the need for rigorous evidence synthesis of existing research, including qualitative research [5].

A key issue relates to the extent to which QES represents a recognizable variant of the systematic review, as opposed to being of its own kind. A systematic review of the literature (published and unpublished) follows explicit, transparent, and reproducible methods to address a clearly formulated, and traditionally clinically focused, research question [1]. Systematic reviews that follow rigorous and

Conflict of interest Statement: None.

* Corresponding author. Tel: +44-0-114-222-0767; fax: +44-0-114-222-0749.

E-mail address: f.campbell@sheffield.ac.uk (F. Campbell).

What is new?**Key findings**

- We were unable to identify any published guidance specifically on methods for undertaking RQES.
- The RQES examples located in our search used many of the approaches seen in rapid effectiveness reviews such as single reviewer screening and data extraction and more restricted searching. The implications for rigor may differ for RQES and therefore guidance needs to be tailored to the different types of rapid evidence synthesis increasingly used.
- RQESs appear to diverge from full qualitative evidence syntheses in the methods of synthesis used. RQES more commonly adopted descriptive aggregative approaches rather than interpretive approaches that develop conceptual understanding.

What this adds to what was known?

- This is the first scoping review undertaken exploring the methods of an emerging approach to evidence synthesis: rapid qualitative evidence synthesis (RQES).
- Current guidance on rapid review methods, although increasingly plentiful, either focuses exclusively on rapid effectiveness reviews or offers generic guidance that does not explicitly specify the type of review.

What is the implication and what should change now?

- The use of timely synthesis in policy-making requires both rigor and transparency. This work lays foundations for the development of guidance to support this emerging methodology, which is increasingly being used to support patient-oriented decision-making.

transparent methods and include high-quality primary studies are regarded as optimal sources of research evidence to address clinical and health policy questions. Accordingly, systematic review methods are increasingly applied or modified to answer questions using other types of evidence, including qualitative research. Although many synthesis methods are common across different types of evidence, fundamentally different aims and assumptions underpin synthesis of qualitative research, quantitative research, or mixed research types.

The rigor of systematic review standards requires that they typically take between 6 months and 2 years or more to

complete [6]. To address this challenge, methods to expedite the process are increasing [7] and rapid reviews are increasingly common, recognizing that policy makers cannot always afford to wait for findings from a systematic review [8]. Although estimates vary, rapid reviews may be conducted within as little as 8 weeks, potentially saving about 75% of the time from a typical systematic review timeline [9]. Notwithstanding substantial time savings, this shorter timeline requires either extensive resource use or, more commonly, limitations in scope and/or compromises in rigor.

Methods for the development of rapid reviews are evolving to address risks of bias, reporting guidelines, and decisions about appropriate rapid review processes. Given fundamental differences between clinical studies and qualitative studies, it is unclear whether methods used to rapidly synthesize results from the former apply equally to the syntheses of the latter. With nineteen documented approaches to synthesizing qualitative research [10], it is challenging to identify where best to target abbreviated or accelerated qualitative synthesis processes [11]. For example, risk of bias, or quality, is conceived differently and “shortcuts” may present different threats to rapid QES. Similarly, a rapid QES may require demonstrably different processes of synthesis. We have identified a need to understand the extent to which generic rapid review methods translate to rapid QES, and any consequences for rigor. A prerequisite step is to map existing guidance and how reviewers adapt methods to acknowledge the twin needs associated with rapid evidence synthesis of qualitative evidence.

2. Objectives

Our objectives were to

1. Identify existing methodological guidance for the conduct of rapid QES and
2. Identify examples of rapid QES and describe the methods used.

3. Methods

A systematic scoping review approach was chosen to collate, catalog, and describe the state of knowledge for rapid QES methodology [12]. The review protocol lies outside the scope of PROSPERO registration, as it does not address health outcomes, and is available from the authors on request.

3.1. Criteria for considering studies and methodological papers for review

To address our first objective, we sought to identify and include articles that describe methods, or offer guidance, for the conduct of rapid QES. This includes articles describing rapid review approaches to synthesis of any type of qualitative study, or of studies of an unspecified type, but

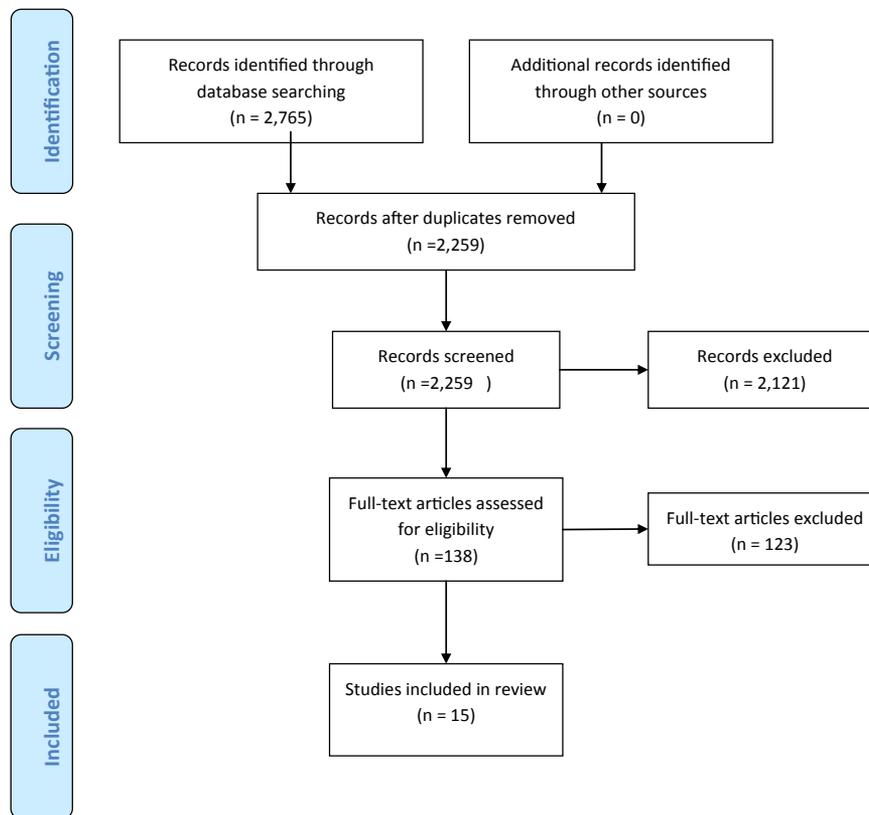


Fig. 1. Flow of studies through the scoping review.

excludes articles explicitly describing synthesis of quantitative or mixed method study designs. To address our second objective, we sought to identify examples of QES that incorporate abbreviated or accelerated approaches within restricted timelines. We focused on syntheses that address a health care intervention or health condition, and we excluded evidence for non-health care topics. During citation screening, we further refined our prespecified inclusion criteria such that examples of rapid QES were required to fulfill three criteria for inclusion. First, authors should explicitly identify their study as “rapid” or otherwise provide evidence that the review was expedited using “shortcuts.” For example, reports where the systematic review process was modified to facilitate efficiency or time savings, such as use of text mining, were eligible even where a review was not described as “rapid.” Second, evidence of systematization (e.g., in identifying data sources or assessing study quality) was required. Finally, a review should positively indicate that it only included qualitative primary studies (i.e., excluding mixed methods reviews).

3.2. Identification of articles

A peer-reviewed literature search was conducted using MEDLINE via Ovid and CINAHL via EBSCO. The search strategy was developed using Medical Subject Headings

and keywords related to “rapid reviews” and “qualitative” research. The search strategy for MEDLINE is provided in Appendix A. The MEDLINE strategy was run on March 31, 2017, and was adapted for use in CINAHL on April 11, 2017. Update searches of both databases were run on March 13, 2018. Gray literature was identified from relevant databases or websites of HTA agencies listed in the Gray Matters checklist (<https://www.cadth.ca/gray-matters>). A focused Google Scholar search was performed using Publish or Perish software [13] for permutations of rapid with qualitative synthesis or review. The PROSPERO international prospective register of systematic reviews (<https://www.crd.york.ac.uk/prospere/>) was searched using broad keywords (e.g., qualitative and rapid, abbreviated or brief) to identify relevant protocols. Follow-up searching for publications relating to PROSPERO protocols was undertaken in PubMed, Google, and Google Scholar. Studies from the gray literature were identified through contact and consultation with experts. The reference list of all eligible studies was examined to identify potentially relevant guidance for the conduct of rapid QES, or examples of rapid QES.

3.3. Selection of articles

Titles and abstracts of all records obtained from the search were independently double screened. Four reviewers

(L.W., A.B., F.C., and A.S.) undertook citation screening and all citations were independently assessed by two reviewers. All disagreements were discussed as a team, until consensus was reached. Full-text copies of all potentially includable articles were retrieved and assessed by two independent reviewers for eligibility against prespecified inclusion and exclusion criteria. Again, any differences were resolved through team discussion.

3.4. Data extraction and management

Structured data extraction forms were developed and piloted for both review questions. Data from included reviews were extracted by a single reviewer (F.C. or A.S.) and verified by a second reviewer (L.W.). Discrepancies were resolved through discussion. Descriptive data included author name, review aims or objectives, setting of research, and date of publication. In addition, we extracted the following for the respective types of eligible articles:

3.4.1. Methodological articles

Nomenclature used to characterize the review method (e.g., rapid, abbreviated), time frames, purpose, disciplinary background of the authors, approach used to develop guidance, and details of the guidance, organized around a Search, Appraisal, Synthesis, and Analysis (SALSA) framework [14]. In addition, the form documented how review methods had been adapted for publication and whether methods were specific to a particular type of research synthesis, whether they explicitly included qualitative synthesis, and specific mentions of any types of QES.

3.4.2. Examples of rapid qualitative evidence syntheses

Methods used to abbreviate or accelerate topic identification, research question refinement, searching, study selection, data extraction, data synthesis, quality appraisal, report production, or dissemination were documented. In addition, we noted explicit motivations for the review and its rapid nature, the review question, the timeline, and any explicit statement of limitations or resulting implications for review quality.

Given limited methodological reporting uncovered during data extraction, we invited the contact author of each included article to clarify extracted data items and e-mail additional details for their inclusion.

3.5. Data synthesis

Extracted data were categorized and frequencies calculated for important characteristics of included studies and their methods. Our goal was to fully describe methodological guidance and methods used within published examples of rapid QES.

4. Results

Two thousand seven hundred and sixty-five citations were identified through database and gray literature searching. Of these, the full-text of 138 was reviewed, and 15 were determined as eligible. A PRISMA diagram is included as Fig. 1. Notably, we only identified examples of rapid QES; no methodological guidance for rapid QES was found. We were able to contact authors of eleven of the 15 reviews to clarify methodological and procedural details, which are further elaborated and summarized in Table 1 and Fig. 2. We have used RETREAT criteria (Review questions—Epistemology—Time/Timescale—Resources—Expertise—Audience and purpose—Type of data) [10] to provide a framework for our findings (Table 1). These seven considerations have been identified as those which determine the choice of QES methods and therefore provide an appropriate framework for describing the methods used in the identified rapid QES included in this scoping review.

4.1. Description of included rapid reviews

Thirteen reviews ($n = 12$) [15–22,24–27] and two protocols ($n = 2$) [23,29] were included. Two were published in 2018 [24,28], seven in 2017 [16–19,26,27,29], three in 2016 [15,20,23], two in 2015 [21,25], and one in 2010 [22]. Seven reviews were conducted in Canada (all by the Canadian Agency for Drugs and Technologies in Health) [15–20,26], six in the United Kingdom [21,22,27–29], one in the United States [24], and one in Australia [25]. Four were published in a scientific journal [21,22,24,28], whereas 11 (including the two PROSPERO records) were identified from the gray literature [11,15–20,25–27,29]. Ten were explicitly identified as a “rapid review” [19,21–29], whereas five used the terminology “rapid response” [15–18,20].

4.2. Timelines and reasons for rapidity

Most reviews did not state why rapid methods were used. One review identified timeline or budgetary issues as a reason for rapidity [24], and one review stated a need to narrow the focus with no further rationale [21]. Nine reviews were commissioned by a specific agency or institution [15–20,25–27], with no reason given for the use of rapid methods, and four did not indicate why the review was undertaken or why rapid methods were used [22,23,26–29]. For the ten reviews for which we could determine timelines, five reviews were conducted in less than 1 month [15–17,20,21], and five took between 3 and 6 months [18,19,24,26,29]. For the remainder, the timeline was unclear.

4.3. Research questions addressed

Research questions commonly concerned the perspectives and experiences of patients and their families

Table 1. Assessment against the RETREAT criteria

Review ID	Synthesis method	Research question	Epistemology	Time/Timeframe
CADTH. Colorectal Surgery (2016) [15]	Narrative Summary	Patient perspectives and experiences	Realist – Not explicitly stated	Less than 1 month
CADTH. Deep Brain Stimulation (2017) [16]	Narrative Summary	Patient perspectives and experiences	Realist—Not explicitly stated	Less than 1 month
CADTH. Hand Hygiene (2017) [17]	Narrative summary	Patient perspectives and experiences	Realist—Not explicitly stated	Less than 1 month
CADTH. Insomnia (2017) [18]	Narrative summary	Patient experiences and preferences	Realist—Not explicitly stated	3–6 months
CADTH. Proton beam therapy (2017) [19]	Thematic analysis	Patient perspectives and experiences	Realist—Not explicitly stated	3–6 months
CADTH. Total Hip Replacement (2016) [20]	Narrative summary	Patient and caregiver experiences	Realist—Not explicitly stated	Less than 1 month
Curtis-Tyler et al (2015) [21]	Narrative summary	Children, young people, carers, and clinicians' views	Realist—Not explicitly stated	Less than 1 month
Fox (2010) [22]	Narrative summary	Patient help-seeking behavior	Realist—Not explicitly stated	Unclear
Fulton et al (2016) [23]	Narrative summary	Barriers and facilitators to adherence	Realist—Not explicitly stated	Unclear
Grant et al (2018) [24]	Thematic analysis	Methods to engage patients	Realist—Not explicitly stated	3–6 months ["contractually approved timeline and budget"]
Harrison et al (2015) [25]	Metanarrative	Patients' experiences	Idealist—Not explicitly stated	Unclear
Herrington et al (2018) [26]	Thematic analysis	Patient perspectives and experiences	Realist—Not explicitly stated	3–6 months
Parretti et al (2019) [27]	Thematic analysis	Patients' experiences	Realist—Not explicitly stated	Unclear
Stickley et al (2018) [28]	Framework synthesis	Patient-centered outcomes	Realist—Not explicitly stated	Unclear
Uwamahoro et al (2017) [29]	Framework synthesis	Perceptions of young people and stakeholders	Realist—Not explicitly stated	3–6 months

Abbreviations: CASP, Critical Appraisal Skills Programme; DB, database; HTA, health technology assessment; IS, information specialist.

Resources

- Personnel
- Databases
- Data extraction (blind dual data extraction or single reviewer)
- QA tool

	Expertise	Audience and purpose	Type of data
<ul style="list-style-type: none"> • 2 authors including IS • 6 DBs • Single reviewer • CASP 	Qualitative plus IS	Commissioned for HTA agency	5 studies; Qualitative descriptive design [1], phenomenologies [2], grounded theory [1], consensus design [1].
<ul style="list-style-type: none"> • 2 authors including IS • 6 DBs • Single reviewer • CASP 	Qualitative plus IS	Commissioned for HTA agency	14 publications, 9 studies; hermeneutic phenomenology (2S, 4P), content analysis [1], mixed method study with content analysis [1], grounded theory (1S, 4P), thematic analysis [2], psychological interview study [1], highly theorized personal narrative [1].
<ul style="list-style-type: none"> • 3 authors, including 1 advisor and 1 IS • 3 DBs • Single reviewer • CASP 	Qualitative plus IS	Commissioned for HTA agency	26 studies, 2 questions; qualitative description [7], mixed methods [3], grounded theory [5], focus group methodology [1], video-reflexive ethnography [1], framework analysis [2], content analysis [3], phenomenology [1], interpretive description [1], and action research [2]
<ul style="list-style-type: none"> • 3 authors, including IS • 6 DBs • Two independent reviewers • CASP (single reviewer) 	Qualitative plus IS	Commissioned for HTA agency	23 publications; Qualitative descriptive designs [6] phenomenologies [7], grounded theory [4], systematic review [1], and mixed methods [5]
<ul style="list-style-type: none"> • 3 authors including 1 advisor and 1 IS • 5 DBs • Single reviewer • CASP 	Qualitative plus IS	Commissioned for HTA agency	18 articles, 15 studies; thematic analysis [8], generic qualitative design [3], phenomenologies [3], content analysis [1]
<ul style="list-style-type: none"> • 2 authors including IS • 5 DBs • Single reviewer • NR 	Qualitative plus IS	Commissioned for HTA agency	12 studies; qualitative descriptive designs [8], phenomenologies [2], grounded theory [1], and cross-sectional design [1]
<ul style="list-style-type: none"> • 4 authors • 3 DBs • Single reviewer with verification • Framework used 	Not stated	Not stated	20 papers; not stated
<ul style="list-style-type: none"> • 1 author • >7 DBs • NR • Not done 	Not stated	Not stated	5 articles (study types not stated)
<ul style="list-style-type: none"> • 2 authors • 3 DBs • Single reviewer • NR 	Staff candidate and supervisors	Chief Scientist's Office Doctoral fellowship	Protocol
<ul style="list-style-type: none"> • 7 authors • 4 DBs • Single reviewer • Not done 	Not stated	Commissioned from RAND Corporation	79 articles
<ul style="list-style-type: none"> • 3 authors • >7 DBs • Two independent reviewers • NR 	Not stated	Commissioned for not-for-profit institute	39 studies; thematic analysis [22], discourse analysis [4], grounded theory [4], phenomenology [2], "Taxonomic" [1], framework analysis [1], not stated [1]
<ul style="list-style-type: none"> • 3 authors including IS • 6 DBs • Single reviewer • CASP 	Qualitative plus IS	Commissioned for HTA agency	7 studies; systematic review [1], phenomenology [2], not reported but descriptive without theoretical orientation [4]
<ul style="list-style-type: none"> • 3 authors (plus IS) • 3 DBs • Two independent reviewers • CASP single reviewer with verification 	Qualitative	UK NIHR funded	20 studies (2 mixed methods, 18 not reported)
<ul style="list-style-type: none"> • 3 authors (4 researchers) • >7 DBs • NR • Not done 	Not stated	Not stated	17 studies (study types not stated)
<ul style="list-style-type: none"> • 3 authors • 4 DBs • Single reviewer • CASP single reviewer with verification 	Student and supervisors	PhD Scholarship	Protocol

undergoing particular interventions or diagnostic tests. Most of the included reviews sought to understand expectations around the outcomes of interventions and which outcomes mattered most to patients. Reviews also sought to explore patient perspectives on the acceptability of interventions and barriers and facilitators to uptake. One review [22] explored help-seeking behavior, and another examined methods to engage patients online in guideline development [24].

4.4. Rapid methods to search for and identify eligible studies

Strategies to search for relevant literature varied across included reviews. Reviewers searched or planned to search three ($n = 4$ rapid reviews) [17,21,23,27], four ($n = 2$ rapid reviews) [24,29], five ($n = 2$) [19,20], six ($n = 4$) [15,16,18,26], or seven and more ($n = 3$) [22,23,25] electronic databases, with 21 unique databases being searched across included reviews. Searched databases included MEDLINE ($n = 13$), PsycINFO ($n = 9$), CINAHL ($n = 9$), PubMed ($n = 8$), The Cochrane Library ($n = 5$), University of York, Centre for Reviews and Dissemination databases ($n = 5$), Embase ($n = 4$), Web of Science ($n = 3$), ASSIA ($n = 2$), Scopus ($n = 2$), Medline ($n = 1$), TRIP database ($n = 1$), Science Direct ($n = 1$), EBSCO ($n = 1$), SwetsWise ($n = 1$), JSTOR ($n = 1$), InformIT ($n = 1$), JBI Database of Systematic Reviews and Implementation Reports ($n = 1$), Ovid Nursing Full Text Plus ($n = 1$), Social Policy and Practice ($n = 1$), and Web of Knowledge ($n = 1$). Two reviews [19,27] only undertook electronic database searching, whereas the remainder also searched gray literature ($n = 9$) [15–18,20–22,26,27], hand-searched specific journals ($n = 2$) [22,27,30], searched reference lists ($n = 3$) [21,23,29], and contacted experts ($n = 1$) [24]. Five reviews limited the number of returned citations: four limited the number of years searched and used language limits [15,16,18,20], and one review limited by country [22]. Ten reviews mentioned involvement of an information specialist or medical librarian to develop and execute the search strategy [15–20,22–24,26], whereas the remainder did not.

Of the thirteen completed reviews, three included less than ten studies [15,22,26], seven included between 11 and 20 studies [16,17,19–21,27,29], one included between 21 and 30 studies [18], one included between 31 and 40 [25] studies, and one included more than 40 studies [24].

4.5. Rapid methods for screening, data extraction, and quality appraisal

Most reviews used a single reviewer for title and abstract screening ($n = 10$) [15–17,19,20,23,24,26,27,29] and/or full-text screening ($n = 9$) [15–17,19,20,23,24,26,29]. Two reviews used two independent reviewers for both title and abstract screening and full-text screening [18,25], whereas one review used a single reviewer for title and

abstract screening and two independent reviewers for full-text screening [27]. A further review used partial verification, with a primary reviewer screening titles, abstracts, and full text, involving a second reviewer to clarify uncertainties [21]. Two reports omitted details and we were unable to verify the title and abstract or full-text screening processes with review authors [22,28]. See Table 2 for further details.

Similarly, a single reviewer was most commonly used for data extraction ($n = 11$) [15–21,23,24,26,28] and quality appraisal ($n = 8$) [15–21,26] with one using two independent reviewers [24]. In two reviews ($n = 2$) [27,29], a single reviewer extracted data and conducted quality appraisal, whereas a second reviewer verified either all or a random sample of extractions and assessments. Three reviews [22,24,28] did not use quality appraisal. One report did not include any information on data extraction [22], and three [20,23,25] did not include any information on how, or whether, quality appraisal was completed. Eleven of the 12 reviews [15–21,23,25–27,29] for which quality appraisal was undertaken used the Critical Appraisal Skills Programme Qualitative Checklist tool [31,32], and one review [21] used a published framework to guide quality appraisal. Although methodological literature was cited within all 13 reviews (and none of the protocols), none made reference to any methodological guidance or framework specific to the conduct of rapid QES. Instead, references to methodological literature specific to standard QES or the conduct of rapid reviews in general were used, for example, Sandelowski and Barroso (2003) [33], Melia (2010) [34], Petticrew and Roberts (2006) [35].

4.6. Rapid methods for data synthesis

Methods of synthesis included narrative summary ($n = 8$) [15–18,20–23] with themes from the included articles aggregated within the rapid QES. Four reviews [19,24,26,27] used thematic analysis, two reported using framework synthesis [28,29], and one [25,30] described a metanarrative approach. Where the synthesis approach was not reported, we assessed the output from the synthesis to make a determination [15–18,20,22]. Five reviews [15,22,23,25,27] did not describe any methods used to improve rigor. In four [21,24,26,28], team members examined preliminary results to validate the interpretation of study findings. In another five [16–20], memos and annotation were used to enhance rigor in the coding process. Methodological literature, where cited, referred to the methods for the particular synthesis approach used, with no reference to how it might be applied in a rapid context.

5. Discussion

Through this scoping review, we aimed to identify and describe methodological guidance for the rapid conduct

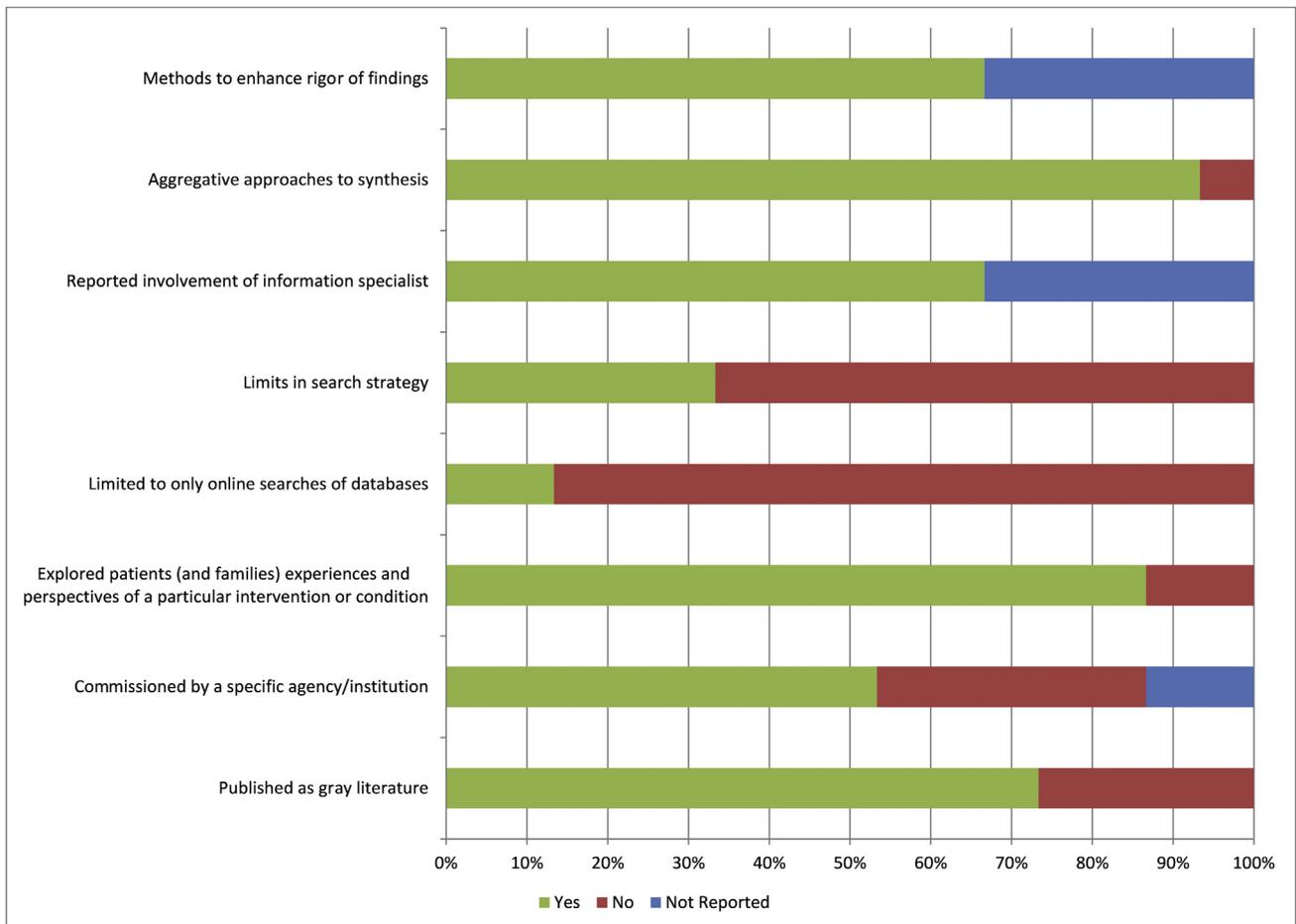


Fig. 2. Characteristics of example rapid qualitative evidence syntheses.

of QES, as well as the methods used, or planned, within published examples. We sought to examine the extent to which current guidance and practice offers a methodological evidence base to facilitate common expectations and methods for a rapid QES process.

We did not identify any guidance specific to rapid QES, although we identified 15 examples of rapid QES, including 13 reports of completed reviews [15–22,24–28] and two protocols [23,29]. Examples were planned or undertaken and published in the past 8 years, many being published as gray literature in online databases and websites. Over half were undertaken as specific commissions to guide decision-making in health policy [15–20,25,26].

Our team initially assumed that published rapid QES was more prevalent than established by this scoping review. Published reviews retrieved through our literature search commonly used both quantitative and qualitative studies within a rapid “mixed method review,” which were not eligible for this review. It is possible that these reviews sought to address multiple aspects of decision support rather than a single issue or perspective [36]. Similarly, when asked for published examples, experts did not explicitly identify or report the use of methods to abbreviate or accelerate the review process in the examples they

identified. Markers of rapidity may have been withheld to increase the likelihood of publication, or a rapid QES may have subsequently been upgraded to a full synthesis before publication. As a consequence, the actual prevalence of published rapid QES remains unclear, with the sample identified for this review likely underrepresenting actual numbers. Given what appears to be an increase in the incidence of rapid QES in recent years, and an associated demand for such evidence to support decision making, there is a clear need to develop methodological and reporting guidance that reflects the nature of qualitative inquiry and preserves its iterative, inductive, and interpretive qualities.

Where reported, the included reviews were conducted within less than 6 months. To meet these short time frames, reviewers used methods to increase the speed and efficiency of the review process. Our results suggest that QES review teams are largely borrowing rapid methods from the wider rapid review community; for example, by imposing date limitations on the search and including only articles published in English. Although gray literature was commonly searched, search methods did not typically extend to more time-consuming activities such as hand-searching journals or approaching experts. Interestingly, the number of databases searched seems to suggest that searches were not

typically limited to one or few, databases. It is possible that qualitative search results may be less plentiful, hence requiring more extensive searching to locate, or experienced teams of reviewers may include information specialists familiar with, and with access to, multiple databases. It is established that qualitative research is less readily located within biomedical journal databases [37] and so compromises in the number of databases may risk missing relevant studies. Perhaps accordingly, researchers engaged in QES seem to share with clinical reviewers a concern with being comprehensive and not “missing” eligible studies.

Quality appraisal was omitted or not reported in approximately one-third of identified examples, mirroring a review of classic rapid review methods which suggests that quality appraisal was omitted or not reported in 24% of examples [38]. Given the debates within the broader QES community regarding methods for, and the importance of, quality appraisal [34], it is surprising that this step was not more commonly omitted.

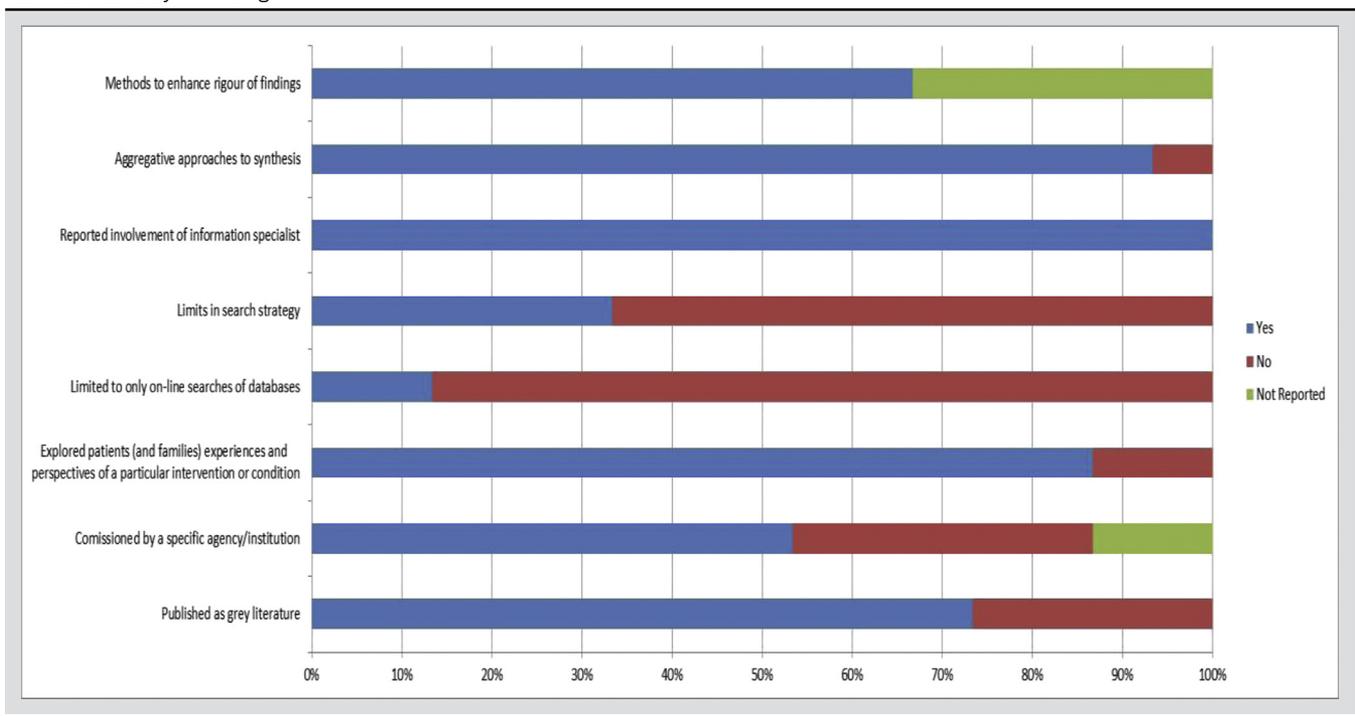
Although mirroring methods used for the rapid review of evidence of intervention effects may offer a reasonable starting point for a QES, it remains unclear which shortcuts, if any, are appropriate and which require further examination. For example, does the increased error rate of single reviewer citation screening and data extraction [39] translate to qualitative data and, if so, what are the implications of errors in qualitative data extraction? Typically, in qualitative analysis, data collection, coding, and interpretation concentrate on reflection and discussion within the team and engaging with other literature, as opposed to identifying, counting, and correcting errors. The effects of having a limited opportunity for

reflection and discussion cannot be quantified in a QES. However, we can hypothesize that limited reflection and discussion will lead to a superficial analysis, with the potential loss of additional insights and interpretations.

Booth et al. (2018) [10] itemize how nineteen QES methodologies divide into aggregative approaches that aim to describe the findings of the primary studies or interpretive approaches that aim to develop a new conceptual understanding or “theory” [40]. Similarly, Thomas et al. (2017) [41] suggest that methods of synthesis lie on a continuum from mostly unchanged (aggregating categories or findings within “thematic summaries”) to mostly emergent (de novo analysis and conceptual ordering as for “metaethnography”). The predominance of aggregative synthesis within rapid QES, as identified through this scoping review, contrasts with extensive use of interpretative approaches within full QES, where metaethnography is at least as common as thematic approaches [42]. Aggregative approaches are similarly more common in rapid quantitative reviews with 78% of rapid reviews using narrative or descriptive summary and meta-analysis occurring less commonly [43].

Incomplete description of individual methods or approaches of synthesis and gaps in the empirical base that underpins them have been targeted for a potential research agenda [10], and this extends to rapid QES. We identified several examples where authors omitted methodological details (e.g., the number of reviewers used or the approach to critical appraisal). Although authors were forthcoming about their methodological approach once we contacted them for further details, it is unclear if this omission sought to mask the rapid nature of the review to optimize subsequent

Table 2. Summary of findings



publication, if it reflected publication space restrictions, or if it was due to the absence of reporting standards. The absence of quality assurance procedures is particularly important for emergent rapid QES, if implications for “shortcuts” are to be acknowledged and reported to help users to use and interpret the findings. Typically, quality assurance for evidence synthesis centers on the following:

1. Guidance for conducting the review
2. Guidance for reporting the review (reporting standards)
3. Guidance or checklists for assessing the quality of the completed review

To what extent is rapid QES ready for such developments? Guidance for conducting a review often relies on audits of existing studies in identifying current accepted practice; in providing an initial audit, this article is limited by the relative scarcity of published examples and an uncritical acceptance of rapid review methods developed for questions of intervention effects. The development of reporting standards [44] should follow accepted procedures including a systematic literature review, a Delphi process, and a consensus meeting. Generally, reporting standards for qualitative syntheses are immature; standards have been produced for metaethnographies [45] and realist syntheses [46] but generic standards for QES fall short of full scientific development [47]. Rigorous guidance for the conduct and reporting of a full QES process is required before we can translate or reinterpret these within a rapid review context. Checklists for quality appraisal require similar developmental processes to reporting standards, and a framework for development has been proposed [48].

Concern has been expressed at “superficial” QES approaches that privilege technical procedures over fidelity to the qualitative paradigm [49]. Qualitative researchers, and those involved in QES from outside the pragmatic HTA and decision-support community, may resist the notion of rapid QES. However, this concern must be balanced with acknowledgment that, within limited time or resource envelopes, “something may be better than nothing.” A good evidence synthesis for policy will consider many types and sources of evidence [50]; collating and synthesizing evidence to inform decision-making in health care requires information from diverse sources. Factors that influence uptake, acceptability, and effectiveness of interventions and services are best identified by gathering the perspectives of those who receive and/or deliver services; why would a policy maker not wish to access a synthesis of qualitative studies that captures, with empirical rigor, perspectives of service users. Notwithstanding potential discomfort associated with the lack of consensual guidance, the need to produce qualitative analyses in rapid time to meet decision makers’ needs remains persistent.

We acknowledge some limitations in the methods we have used, which may have an impact on the comprehensiveness of our findings. These include not describing all

of the characteristics of the reviews and the review teams. We were not able to describe where review teams may have expedited the review process by parallel working. We also were not able to examine aspects that would offer insights into methods used, such as the expertise of the review team or their epistemology. We also did not hear back from all authors, so some data are missing.

Given this limited evidence base, we exhort the review community to share further examples of rapid QES, to describe methods used in their production and produce empirical data to support their use. In the long term, we hope to offer a catalyst for a group or network of academic and policy researchers interested in rapid QES methods. Review methodologies for rapid realist syntheses, rapid evidence assessments, and evidence briefings have been developed within the time-sensitive context of decision support, technology assessment, and policy appraisal. A robust case for the value of the rapid QES remains to be articulated. Recent guidance [10,51,52] and editorials [53] on QES, in general, hint at the potential for progress. However, enabling guidance for rapid QES is required.

The use of timely syntheses in policy-making requires both rigor and transparency. Undertaking a QES “rapidly” requires that producers and users alike aim to recognize the potential limitations of the approach and what these mean for the credibility, trustworthiness, and transferability of the outputs. Time taken is often traded against depth of analysis. Commissioners and policy-makers must be aware of these limitations so that, where feasible and appropriate, a full QES can be undertaken.

Acknowledgments

ScHARR methods support grant, University of Sheffield funded Fiona Campbell’s time to undertake this research. They had no involvement in the design, conduct, analysis, or findings of the research.

Authors’ contributions: F.C. contributed to conceptualization, methodology, validation, formal analysis, investigation, writing, visualization, supervision, and project administration and was responsible for funding acquisition. L.W. contributed to conceptualization, methodology, validation, formal analysis, investigation, writing—review and editing, visualization, supervision, and project administration. A.B. contributed to conceptualization, methodology, validation, writing—review and editing, supervision, and project administration. D.K. contributed to acquisition of data and writing. A.S. contributed to validation, formal analysis, investigation, and writing—review and editing.

Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.jclinepi.2019.05.032>.

References

- [1] Noyes J, Popay J, Pearson A, Hannes K, Booth A. On behalf of the Cochrane Qualitative research methods group. Qualitative research and Cochrane reviews. In: Higgins JPT, Green S, editors. *Cochrane Handbook for Systematic Reviews of Interventions*. Chichester: The cochrane Collaboration and John Wiley & Sons Ltd.; 2008: 571–87. <https://doi.org/10.1002/9780470712184.ch20>.
- [2] Lewin S, Glenton C. Are we entering a new era for qualitative research? Using qualitative evidence to support guidance and guideline development by the World Health Organization. *Int J Equity Health* 2018;17(1):126.
- [3] Petticrew M, Rehfuess E, Noyes J, Higgins JP, Mayhew A, Pantoja T, et al. Synthesizing evidence on complex interventions: how meta-analytical, qualitative, and mixed-method approaches can contribute. *J Clin Epidemiol* 2013;66:1230–43.
- [4] Facey KM, Hansen HP. Patient-focused HTAs. *Int J Technol Assess Health Care* 2011;27(4):273–4.
- [5] Thorne S. The role of qualitative research within an evidence-based context: can metasynthesis be the answer? *Int J Nurs Stud* 2009;46(4):569–75.
- [6] Khangura S, Konnyu K, Cushman R, Grimshaw J, Moher D. Evidence summaries: the evolution of a rapid review approach. *Syst Rev* 2012;1(1):10.
- [7] Kaltenthaler E, Cooper K, Pandor A, James MM-S, Chatters R, Wong R. The use of rapid review methods in health technology assessments: 3 case studies. *BMC Med Res Methodol* 2016;16:108.
- [8] Head BW. Reconsidering evidence-based policy: key issues and challenges. *Policy Soc* 2010;29(2):77–94.
- [9] Schünemann HJ, Moja L. Reviews: rapid! rapid!... and systematic. *Syst Rev* 2015;4(1):4.
- [10] Booth A, Noyes J, Flemming K, Gerhardus A, Wahlster P, van der Wilt GJ, et al. Structured methodology review identified seven (RETREAT) criteria for selecting qualitative evidence synthesis approaches. *J Clin Epidemiol* 2018;99:41–52.
- [11] Tsertsvadze A, Chen Y-F, Moher D, Sutcliffe P, McCarthy N. How to conduct systematic reviews more expeditiously? *Syst Rev* 2015;4(1):160.
- [12] James KL, Randall NP, Haddaway NR. A methodology for systematic mapping in environmental sciences. *Environ Evid* 2016;5:7.
- [13] Harzing AW. Publish or perish. 2007. Available at <https://harzing.com/resources/publish-or-perish>. Accessed April 4, 2019.
- [14] Grant MJ, Booth A. A typology of reviews: an analysis of 14 review types and associated methodologies. *Health Info Libr J* 2009;26(2):91–108.
- [15] (CADTH) CaFDaTiH. Patient perspectives and experiences regarding colorectal surgery and indocyanine green angiography: a review of patient perspectives. Ottawa, Canada: CADTH; 2016. Available at <https://cadth.ca/sites/default/files/pdf/htis/2018/RC0834%20Colorectal%20Surgery%20PPE%20Final.pdf>. Accessed April 4, 2019.
- [16] (CADTH) CaFDaTiH. Deep brain stimulation and levodopa-carbidopa intestinal gel as interventions for advanced Parkinson disease: a review of the qualitative patient perspectives and experiences literature 2017: Ottawa, Canada. Available at <https://cadth.ca/sites/default/files/pdf/htis/2018/RC0914%20PPE%20for%20PD%20final.pdf>. Accessed April 4, 2019.
- [17] (CADTH) CaFDaTiH. Health care practitioner hand hygiene practices and health care associated infections: a review of the qualitative patient perspectives and experiences literature. CADTH rapid response report: summary with critical appraisal. 2017. Ottawa, Canada. Available at <https://cadth.ca/sites/default/files/pdf/htis/2018/RC0914%20PPE%20for%20PD%20final.pdf>. Accessed April 4, 2019.
- [18] (CADTH) CaFDaTiH. Treatments for insomnia: review of patient experiences and preferences 2017: Ottawa, Canada. Available at <https://cadth.ca/sites/default/files/pdf/htis/2017/RD0039-OP0527%20Insomnia%20PPE%20Final.pdf>. Accessed April 4, 2019.
- [19] Dejean D. Patient perspectives and experiences review. In: Proton beam therapy for the treatment of cancer in children and adults: a health technology assessment. Ottawa, Canada: Canadian Agency for Drugs and Technologies in Health (CADTH); 2017. Available at https://cadth.ca/sites/default/files/pdf/HT0017_PBT_Report.pdf. Accessed April 4, 2019.
- [20] (CADTH) CaFDaTiH. The meaning and impact of the benefits and harms of total hip replacement: a review of patient and caregiver experiences and perspectives. Ottawa, Canada: CADTH; 2016. Available at <https://cadth.ca/sites/default/files/pdf/htis/2017/RC0796%20Hip%20Implants%20PPE%20Final.pdf>. Accessed April 4, 2019.
- [21] Curtis-Tyler K, Arai L, Stephenson T, Roberts H. What makes for a 'good' or 'bad' paediatric diabetes service from the viewpoint of children, young people, carers and clinicians? A synthesis of qualitative findings. *Arch Dis Child* 2015;100:826–33.
- [22] Fox C. Evidence summary: what do we know from qualitative research about people's care-seeking about oral health? *Br Dental J* 2010;209(5):225–31.
- [23] Fulton R, Kroll T, Witham M. Barriers and facilitators to medication adherence in heart failure patients, a rapid review of qualitative evidence. PROSPERO; 2016. Available at http://www.crd.york.ac.uk/PROSPERO/display_record.php?ID=CRD42016038948. Accessed April 4, 2019.
- [24] Grant S, Hazlewood GS, Peay HL, Lucas A, Coulter I, Fink A, et al. Practical considerations for using online methods to engage patients in guideline development. *Patient* 2018;11(2):155–66.
- [25] Harrison R, Walton M, Manias E. Patients' experiences in Australian hospitals: an Evidence Check rapid review brokered by the Sax Institute (www.saxinstitute.org.au) for the Australian Commission on Safety and Quality in Health Care. Haymarket, New South Wales, Australia: Sax Institute; 2015.
- [26] Herrington E, Manogaran M. Patient perspectives and experiences. In: Optimal strategies for the diagnosis of acute pulmonary embolism: a health technology assessment. Canadian Agency for Drugs and Technologies in Health (CADTH); 2018. Available at https://cadth.ca/sites/default/files/pdf/OP0528_Imaging_for_PE_Report_Final.pdf. Accessed April 4, 2019.
- [27] Parretti HM, Hughes CA, Jones LL. 'The rollercoaster of follow-up care' after bariatric surgery: a rapid review and qualitative synthesis. *Obes Rev* 2019;20(1):88–107.
- [28] Stickley T, Wright N, Slade M. The art of recovery: outcomes from participatory arts activities for people using mental health services. *J Ment Health* 2018;27(4):1–7.
- [29] Uwamahoro NS, Rowlands G, Thomson R. Perceptions of HIV infected young people and key stakeholders regarding adolescent/youth-friendly health services in Africa: a rapid review and framework synthesis using the COM-B model of the Behaviour Change Wheel. PROSPERO; 2017. Available at http://www.crd.york.ac.uk/PROSPERO/display_record.php?ID=CRD42017074132. Accessed April 4, 2019.
- [30] Dennis SM, Harris M, Lloyd J, Davies GP, Faruqi N, Zwar N. Do people with existing chronic conditions benefit from telephone coaching? A rapid review. *Aust Health Rev* 2013;37(3):381–8.
- [31] Qualitative Checklist. Oxford centre for triple value healthcare Ltd. Available at <https://casp-uk.net/wp-content/uploads/2018/01/CASP-Qualitative-Checklist-2018.pdf>. Accessed November 8, 2018.
- [32] Majid U, Vanstone M. Appraising qualitative research for evidence syntheses: a compendium of quality appraisal tools. *Qual Health Res* 2018;28:2115–31.
- [33] Sandelowski M, Barroso J. Creating metasummaries of qualitative findings. *Nurs Res* 2003;52(4):226–33.
- [34] Melia KM. Recognizing quality in qualitative research. In: Bourgeault I, De Vries R, Dingwall R, editors. *SAGE handbook of qualitative methods in health research*, Chapter 28. Thousand Oaks, CA: SAGE; 2010:559–74.
- [35] Petticrew M, Roberts H. Systematic reviews in the social sciences: a practical guide. California: John Wiley & Sons; 2008. <https://doi.org/10.1002/9780470754887>.

- [36] Pope C, Mays N, Popay J. Synthesising qualitative and quantitative health evidence: a guide to methods: a guide to methods. UK: McGraw-Hill Education; 2007.
- [37] DeJean D, Giacomini M, Simeonov D, Smith A. Finding qualitative research evidence for health technology assessment. *Qual Health Res* 2016;26:1307–17.
- [38] Harker J, Kleijnen J. What is a rapid review? A methodological exploration of rapid reviews in health technology assessments. *Int J Evid Based Healthc* 2012;10(4):397–410.
- [39] Buscemi N, Hartling L, Vandermeer B, Tjosvold L, Klassen TP. Single data extraction generated more errors than double data extraction in systematic reviews. *J Clin Epidemiol* 2006;59:697–703.
- [40] Toye F, Seers K, Allcock N, Briggs M, Carr E, Barker K. Meta-ethnography 25 years on: challenges and insights for synthesising a large number of qualitative studies. *BMC Med Res Methodol* 2014;14:80.
- [41] Thomas J, O'Mara-Eves AJ, Kneale D, Shemilt I. Synthesis methods for combining and configuring textual or mixed methods data. In: Gough D, Oliver S, Thomas J, editors. *An introduction to systematic reviews*. 2nd ed. London: Sage; 2017.
- [42] Dalton J, Booth A, Noyes J, Sowden AJ. Potential value of systematic reviews of qualitative evidence in informing user-centered health and social care: findings from a descriptive overview. *J Clin Epidemiol* 2017;88:37–46.
- [43] Tricco AC, Antony J, Zarin W, Striffler L, Ghassemi M, Ivory J, et al. A scoping review of rapid review methods. *BMC Med* 2015;13(1):224.
- [44] Moher D, Schulz KF, Simera I, Altman DG. Guidance for developers of health research reporting guidelines. *PLoS Med* 2010;7(2):e1000217.
- [45] France EF, Cunningham M, Ring N, Uny I, Duncan EA, Jepson RG, et al. Improving reporting of meta-ethnography: the eMERGe reporting guidance. *BMC Med Res Methodol* 2019;19:25.
- [46] Wong G, Greenhalgh T, Westhorp G, Buckingham J, Pawson R. RAMESES publication standards: meta-narrative reviews. *BMC Med* 2013;11(1):20.
- [47] Tong A, Flemming K, McInnes E, Oliver S, Craig J. Enhancing transparency in reporting the synthesis of qualitative research: ENTREQ. *BMC Med Res Methodol* 2012;12:181.
- [48] Whiting P, Wolff R, Mallett S, Simera I, Savović J. A proposed framework for developing quality assessment tools. *Syst Rev* 2017;6(1):204.
- [49] Thorne S. Metasynthetic madness: what kind of monster have we created? *Qual Health Res* 2017;27:3–12.
- [50] Donnelly CA, Boyd I, Campbell P, Craig C, Vallance P, Walport M, et al. Four principles to make evidence synthesis more useful for policy. *Nature* 2018;558:361–4.
- [51] Glenton C, Lewin S, Norris S. Using evidence from qualitative research to develop WHO guidelines (Chapter 15). *World Health Organization Handbook for Guideline Development*. 2nd ed. Geneva: WHO; 2016.
- [52] Booth A, Noyes J, Flemming K, Gerhardus A, Wahlster P, van der Wilt GJ, et al. *Guidance on choosing qualitative evidence synthesis methods for use in health technology assessments of complex interventions*. Integrate-HTA, University of Bremen; 2016.
- [53] Carroll C. Qualitative evidence synthesis to improve implementation of clinical guidelines. *BMJ* 2017;356:j80.