Book Section:
Booth, A. and Fryer, K. (2026) Qualitative evidence synthesis. In: Facey, K.M., Holtorf, A.-P. and Single, A.N.V., (eds.) Patient Involvement in Health Technology Assessment. Health Informatics. Springer Nature Switzerland, pp. 177-194. ISBN: 9783032112835. ISSN: 1431-1917. EISSN: 2197-3741.

https://doi.org/10.1007/978-3-032-11284-2_11

Chapter 11
Qualitative Evidence Synthesis

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11.1 Introduction

Qualitative evidence synthesis (QES), also known as qualitative systematic review or qualitative meta-synthesis, offers a way to present patients' attitudes, beliefs, feelings and experiences as originally captured by individual qualitative research studies (Flemming and Noyes 2021). By using multiple studies, rather than a single study, researchers are able to avoid being over-influenced by that isolated study. In representing multiple perspectives from different contexts they can potentially contribute to the transferability of findings.

The experience or perspective of even one patient can be influential within the context of an important healthcare decision. By harnessing multiple patient perspectives, where diverse opinions and attitudes are organised within a single qualitative research study (Tong and Craig 2016), and, then, brought together with multiple similar studies within a synthesis, a research team is able to tap into multiple diverse patient values, experiences and preferences. True, multiple patient perspectives could be collected by commissioning original primary research that studies those targeted by a new treatment or programme. However, that costly alternative may take a prohibitive amount of time; a QES trades the relevance of data from a specific context for an understanding of the perspectives of numerous stakeholders from diverse contexts (Booth et al. 2019a). In recent years, several health technology assessment (HTA) bodies have mobilised the collective richness of multiple qualitative studies. Working from an assumption that, at least to a certain

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K. M. Facey et al. (eds.), *Patient Involvement in Health Technology Assessment*, Health Informatics, https://doi.org/10.1007/978-3-032-11284-2_11

extent, qualitative research findings are 'transferable' (Finfgeld-Connett 2010) they have welcomed emerging methods that have produced such syntheses 'rapidly' without losing the rich insights to be gained through the QES approach (Majid and Weeks 2021).

The term 'qualitative evidence synthesis' has been popularised by the Cochrane Qualitative and Implementation Methods Group as a distinctive label applied broadly to the synthesis of very different types of qualitative data, extending to patient postings on online bulletin boards or narrated patient real-life experiences recorded from interviews (Flemming and Noyes 2021). While commonly the term refers to systematic reviews of research that have used recognised methods of data collection and analysis of qualitative data, as documented in journal articles, book chapters and dissertations and theses, developments and expansions in methods continue to unfold.

This chapter explores the versatile ways that QES can be applied within HTA and how patients can participate in this research. It looks at different types of QES and how they have been used within time-sensitive decision-making contexts such as HTA. The chapter concludes by looking at how data from qualitative research can be placed alongside quantitative data (for example from clinical effectiveness or cost effectiveness evaluations) in an HTA.

11.2 Developments in Qualitative Evidence Synthesis

QES started to appear in the literature in the latter half of the 1990s when a landmark meta-synthesis sought to extend "the analysis of individual research studies beyond individual experience to incorporate dominant system beliefs and health system ideologies" (Paterson et al. 1998, p. 57). A decade later a chapter on qualitative evidence appeared in the *Cochrane Handbook of Systematic Reviews of Interventions* (Noyes et al. 2008). However, the first stand-alone Cochrane QES was not published in the Cochrane Library until 2013. While dispersed adoption is evidenced in HTA bodies such as the National Institute for Health and Care Excellence (NICE) in the UK, Canada's Drug Agency (CDA-AMC) and the World Health Organization (2021) such progress has frequently faced challenges from the apparent discomfort of those more familiar with the quantitative paradigm when encountering the interpretative nature of qualitative evidence—with the HTA review team, in effect, offering interpretations (by the team) of interpretations (by the primary authors) of the experiences of research participants.

At the beginning of the 2020s, interest expanded to include rapid qualitative evidence syntheses. HTA organisations were at the forefront of this rapid approach to use of synthesized qualitative evidence (Ring et al. 2010), being attracted by the timely incorporation of patient experiences within the decision-making process (Majid and Weeks 2021; Campbell et al. 2019). During the COVID-19 pandemic the first Cochrane rapid QES was produced within 25 days as part of the WHO

response (Biesty et al. 2020). Several HTA bodies now include rapid QESs within their HTA reports. Such is the prevalence of QESs that it has become feasible to produce overviews of QES (mega-syntheses) where QESs, not primary studies, are subject to synthesis and analysis (Carroll et al. 2022).

It is appropriate at this juncture to see the next phase in QES development signalled by the planned publication in 2026 of the first ever *Cochrane-Campbell Handbook of Qualitative Evidence Synthesis* (Noyes and Harden 2026, In press). In particular, this forthcoming handbook displays a pervasive approach to both patient and public involvement and to equality, diversity and inclusion. It also manifests a methodological concern with reflexivity and with purposive sampling of studies.

11.3 Using QES to Build Reliable Patient-Based Evidence in HTA

There are at least three main ways in which a QES, which can be used for multifarious HTA purposes (e.g. acceptability and implementation) and perspectives (e.g. policy makers, clinicians, public) can be harnessed to provide robust patient-based evidence to inform decision-making:

1. a QES may be a mechanism by which to present evidence about patients' experiences and perspectives of relevance to an HTA
2. patients may participate in the QES and provide insights that impact other parts of the HTA process
3. a QES may be an appropriate design for studying the evidence base around patient participation processes and methods.

11.3.1 Spotlighting Patients' Perspectives

From their earliest years, QES in health care have offered a vehicle for otherwise disenfranchised patient groups (Booth 2016; Park et al. 2020). As Toye and colleagues observe: "Affirming a person's experience and allowing an empathetic interpretation of their story is not an adjunct [i.e. optional extra], but integral to care" (Toye et al. 2013, p. e835).

As with our featured Effectiveness of Interventions For Fatigue in Long Term Conditions (EIFFEL) synthesis (See Box 11.1), the National Health Service (NHS) HTA programme of the United Kingdom (UK) makes frequent use of QES methods. For example, a very large team of researchers produced the EMPoWER evidence synthesis to explore the needs of very young children with mobility limitations (Bray et al. 2020). Spanish HTA reports, published as journal articles, include qualitative evidence syntheses that capture the prenatal perspectives of

women living with type 1 diabetes (Toledo-Chavarri et al. 2023) and explore the implementation of care for people with generalised anxiety disorder (Toledo-Chávarri et al. 2020).

The Swedish Agency for HTA and Assessent of Social Serivces (SBU) is another champion of QES methodology as evidenced in reports on conflicting attitudes between clinicians and women regarding caesarean section (Johansson et al. 2023) and experiences of eating disorders from the three diverse perspectives of patients, family members and health care professionals (Gustafsson et al. 2021). Other productive agencies for this stream of evidence are CADTH (now Canada's Drug Agency—AMC) in Canada, as exemplified for the nuances of experiences with the extramedical use of buprenorphine (Sud et al. 2022), and the Scottish HTA agency with the apt title "*placing the patient at the centre* of chronic wound care" (Fearns et al. 2017).

11.3.2 Enhancing the HTA Process and Product

Patients' perspectives are crucial in evaluating health technologies (Gagnon et al. 2021). While funders increasingly require patient participation in research, many studies engage in superficial involvement (a 'tick box exercise') rather than meaningful participation (Mitchell et al. 2023). UK NIHR Include guidelines emphasise quality patient participation throughout research processes, challenging researchers to find diverse participants and effectively communicate concepts (Witham et al. 2020). Findings from an updated systematic review show that patient participation in HTA typically occurs through consultation rather than direct involvement (Gagnon et al. 2021). Throughout this chapter, we reflect upon how patients can be included in each stage of the QES process.

Within HTA, QES is considered alongside clinical effectiveness, network meta-analysis, and cost-effectiveness reviews. The EIFFEL study exemplifies this approach, using patient focus groups to guide QES research on fatigue across medical conditions (Leaviss et al. 2025). These groups meet three times to discuss methodology, interpretation, and outputs, with sessions co-facilitated by researchers and individuals with lived experience. Mixed approaches to synthesis continue evolving, either integrating quantitative and qualitative data separately or reviewing mixed-methods primary studies.

Within an HTA context, a QES is generally considered alongside other components such as a review of clinical effectiveness, a network meta-analysis and a review of cost effectiveness. HTA may extend to ask 'what works for whom under what circumstances' using a specific methodology, such as realist synthesis. Box 11.1 offers a recent example of such a compound review commissioned by the UK National Institute of Health and Care Research (NIHR) HTA Programme.

Mixed approaches to synthesis remain under development; mixed methods reviews may juxtapose quantitative trial evidence with qualitative data in

Box 11.1 EIFFEL: Patient Involvement in Interventions for Fatigue (UK NIHR HTA Programme) (Leaviss et al. 2025)

A patient focus group, conducted within a larger health technology assessment, is used to guide an accompanying qualitative evidence synthesis by helping researchers to understand how people with lived experience view the relationship between fatigue and different medical conditions. This guides the larger programme in deciding when it is appropriate to combine evidence from different conditions. Secondly, it helps researchers to understand how people with lived experience make sense of the evidence from research. The wider programme team is thus able to make recommendations for the QES based on the acceptability of different treatments.

Six focus groups represent diverse medical conditions and diverse communities. Each group meets three times: first for a general introduction to the process, then to discuss methodological decisions in relation to the conduct of the evidence synthesis, and finally to contribute to the interpretation of findings and content of outputs.

Focus groups are co-facilitated by a researcher with expertise in PPI work and two study co-applicants with lived experience of fatigue. Groups use a blend of face to face and online (but not hybrid) format chosen to maximise representation of people with different needs and capabilities.

Analysis is at two levels: first to meet the specific PPI needs of the larger evidence synthesis project and second to provide deeper understanding, transferable beyond this study about the perception of fatigue across different medical conditions.

separate syntheses and then seek to integrate the two types of evidence, or, alternatively, they may seek to review only mixed methods primary studies (Noyes et al. 2019).

11.4 Undertaking a Qualitative Evidence Synthesis

Although several methodological choices exist in relation to the actual synthesis process most QESs share common review phases that resemble, at least to a certain degree, corresponding phases in the systematic review of effectiveness data (Table 11.1). The following section summarises the main features of this process; expansive detail of each phase can be found in the *Cochrane-Campbell Handbook of Qualitative Evidence Synthesis* (Noyes and Harden 2026). These QES, as described, are either undertaken within an HTA body by an internal review team (e.g. NICE within the UK) or by contracted external researchers within a national HTA Programme (e.g. NIHR within the UK), henceforth identified singly as 'the review team'.

Table 11.1 Comparison of the phases of a qualitative evidence synthesis and a systematic review

	Qualitative evidence synthesis	Systematic review
1.	Development of clearly formulated review question	Formulate the problem
2.	Scoping the literature	
3.	Identifying included studies	Literature search
4.	Initial assessment of study reports	
		Data extraction
		Critical appraisal of studies (quality assessment)
5.	Analysis and synthesis (at a descriptive, study level)	
6.	Preliminary synthesis (at a descriptive thematic level)	
7.	Full synthesis (at an analytic thematic level)	Data synthesis
8.	Dissemination	Presenting results (writing the report)
9.	Whole process considerations (reflexivity, patient focus, equality, diversity and inclusion)	

11.4.1 Development of Clearly Formulated Review Question

Reviews usually start with a clearly formulated review question. This helps to define the size of the task logistically and the scope of the topic conceptually. For a review of clinical effectiveness the epidemiology-based four-part Population-Intervention-Comparison-Outcomes formulation is typically sufficient (Eriksen and Frandsen 2018). However, qualitative evidence synthesis tends to require more components. A five component formulation, Setting-Perspective-Interest, phenomenon of-Comparison-Evaluation is frequently used (Riesenberg and Justice 2014) although complex interventions may benefit further from the introduction of a Time element and a distinction between the immediate context for an intervention (Setting) and the wider socio-political-legal-environment Context. The seven component PerSPE(c)TiF formulation is proposed for use in complex inteventions as typefied by WHO public health guidelines (Booth et al. 2019b). A clearly formulated question also helps in determining the eligibility criteria, the search strategy (Frandsen et al. 2021) and the selection of the data extraction elements.

Two characteristics are specific to question formulation for QES; first, the review question is more a ‘compass’ rather than the ‘anchor’ associated with effectiveness reviews (Flemming and Noyes 2021). As the review team follows up initial leads, they may unearth further lines of inquiry—in a similar way to inquiry in primary qualitative research. Secondly, a review team may be interested in qualitative data that extends beyond the experience of an intervention, particularly as a health technology may be novel and qualitative research scarce. The QES may have to examine patient experiences of a condition, both with and without any intervention, and may consequently be broader in scope than the effectiveness question (Lorenc et al. 2012).

Patient participation is often critical at this stage; to explore patient priorities and to ensure that the questions identified by researchers reflect patient concerns. There

is a mismatch between what generally receives funding and what patients, carers, and the public would like to see examined (Crowe and Giles 2016). Patients may also be able to aid setting the parameters of the questions, by reflecting on their lived experience of health conditions (Gierisch et al. 2019). The James Lind Alliance undertakes priority setting exercises on a large scale, with methods adapted by individual initiatives such as Born in Bradford (Rahman 2022), and the Deep End Research Alliance (https://sites.google.com/sheffield.ac.uk/dera/research-priority-setting?authuser=0), for smaller scale exercises with underserved communities.

11.4.2 Scoping the Literature

Increasingly it is recognised that, unlike for systematic reviews of effectiveness, it is not always necessary to identify and synthesise all studies in order to create a sufficiently rich interpretation of a phenomenon of interest, whether that be a condition or an intervention. It is argued that 'more of the same' studies add little to a synthesis and so searching for a diverse sample is to be privileged. This interest in the 'disconfirming case' alongside other sources of variation opens up a full array of sampling methods from qualitative research (Benoot et al. 2016).

Scoping of the literature allows a review team to map the important variables for context, population and time and place characteristics. A qualified information specialist can identify key data sources and determine whether included studies belong to a single discipline (requiring similar databases e.g. MEDLINE, EMBASE, CINAHL, PsycInfo) or multiple disciplines (requiring diverse databases to represent each discipline and multidisciplinary databases e.g. Scopus and Web of Knowledge). The potential contribution of book chapters, theses and other types of grey literature should not be overlooked. Regional databases or institutional repositories may also be important for region-specific topics (Stansfield et al. 2012).

11.4.3 Identifying Included Studies

Once the HTA review team has articulated the review question and set its conceptual. Logistical and terminological limits, the team proceeds to formal identification of relevant literature.

The unrivalled coverage of MEDLINE means that a review team may identify up to 90% of included studies from a well-constructed MEDLINE search (Booth 2016). However, recent research suggests that Scopus may well occupy first place in limited 'high-yield' database searches (Frandsen et al. 2019). Retrieval of qualitative research often proves challenging. CINAHL is also considered essential while EMBASE, PsycINFO, Sociological Abstracts and Social Sciences Citation Index (Web of Knowledge) feature prominently in QES search methods.

Certainly, it is important not to rely on conventional subject searching of bibliographic databases but to use numerous supplementary techniques such as backward and forward citation searching, handsearching of relevant journals such as *The Patient*; *Health Expectations*; *Value in Health; Social Science and Medicine*; *Culture, Medicine, and Psychiatry*; *Research Involvement and Engagement*; and *Sociology of Health and Illness* and contact with authors and experts (Papaioannou et al. 2010). Websites of national patient organisations may also yield useful information.

'Clusters' of related studies add thicker contextual detail and a richer conceptual understanding (Booth et al. 2013b). Qualitative sources may include pilot studies, feasibility studies and process evaluations as well as 'sibling' studies that run alongside a higher-profile trial. Health Services Research PubMed Queries (https://www.nlm.nih.gov/nichsr/hedges/ search.html) offers a rapid search facility for scoping qualitative research topics or related topics. Supplementary search strategies (citation searches, co-citations and 'related articles' searches) increase retrieval yield and therefore should be included, whenever time allows (Frandsen and Eriksen 2023).

Given that quantitative studies outnumber qualitative studies by as many as 10:1 it is helpful to choose an appropriate search filter that seeks references with a high number of qualitative-specific words or phrases. For example, phrases such as 'semi-structured interview' are commonly encountered in the context of qualitative research. Predesigned filters exist for retrieving qualitative research studies from the main databases (Wagner et al. 2020). However, it may be equally useful to use hedges of key terms associated with a patient and public involvement (Rogers et al. 2017) or quality of life (InterTASC Information Specialists' Sub-Group (ISSG) 2024). Short lists of qualitative terms may perform comparably to an expansive list (Frandsen et al. 2019). However, this requires testing across a greater range of review topics and literatures. The SuRe Info: Summarized Research in Information Retrieval for HTA Google site (https://sites.google.com/york.ac.uk/sureinfo/home) maintains an updated digest of current knowledge about qualitative sources and strategies (Booth et al. 2021).

Some research teams have involved patients in screening titles and abstracts to establish whether they should be included in the final review, and to observe on how they might be categorised. Careful consideration needs to be given as to how research studies are presented to patients, so that the terminology and style is clearly understandable without sacrificing nuance and rigour. For example, the Fairsteps study developed 'vignettes' from studies, to aid both practitioners and patients to decide whether or not a study should be included within the final review (Jackson et al. 2023).

11.4.4 Initial Assessment of the Study Reports

The fourth phase involves an initial assessment of study reports. After preliminary reading and re-reading, the QES team forms a picture of the literature and how it is structured. Theories, either explicitly stated or implicitly referenced, start to become

apparent (Booth and Carroll 2015b). Such conceptual frameworks may become a useful vehicle for data extraction through framework synthesis (Booth and Carroll 2015a).

At this stage review teams typically undertake quality assessment of the included studies using one from over a 100 available checklists. The Critical Appraisal Skills Programme (CASP) checklist, designed for assessment of a single paper by clinicians not for use in syntheses, has been used widely (Long et al. 2020). In 2024, a new tool, CAMELOT, for use alongside GRADE-CERQual was launched for further user testing and ongoing refinement (Munthe-Kaas et al. 2024).

11.4.5 Analysis and Synthesis

Choice of synthesis is a key decision for any HTA review team. It is determined how much time the team has and whether they are experienced in qualitative research and synthesis. QES methods are plentiful with over 15 different approaches to synthesis having been documented. The RETREAT criteria (Box 11.2) have been developed to help review teams choose the most appropriate method of synthesis (Booth et al. 2018).

Box 11.2 Considerations When Selecting a Method of Qualitative Evidence Synthesis (RETREAT Mnemonic)
Review Question
Epistemology
Time
Resources
Expertise
Audience and Purpose
Type of Data

Cochrane has identified three main synthesis methods from which thematic synthesis and framework synthesis are believed to be the most straightforward and most amenanble to rapid approaches (Noyes et al. 2018). Meta-ethnography has an established pedigree but may not be suitable for producing recommendations for practice. Essentially, it seeks to interpret studies rather than simply aggregating them, with the intent being to generate a new theory or 'line of argument' to explain all the studies (France et al. 2014). The Campbell Collaboration has accepted a further method, meta-aggregation although this has been criticised for not being sufficiently interpretative.

Constant comparison is used to identify patterns and similarities across reports. Refutational findings must be reconciled (Booth et al. 2013a). At this point the

review team may conduct quality assessment, either using a single generic assessment tool or checklist or a battery of checklists designed for individual types of study (Carroll and Booth 2015). They must consider the extent to which the synthesis and its findings are based on robust qualitative studies (Carroll et al. 2012).

Patients can contribute to the interpretation of findings. Commentators attest to the value for the evidence analysis process in capturing patient values and experiences while, at the same time recognising that successful involvement faces key organisational challenges such as time, financial resources, and expertise required to communicate with the patients (Abelson et al. 2016).

11.4.6 Preliminary Synthesis

Preliminary synthesis (stage 6) involves organisational procedures such as categorising, tabulation and the creation of mind maps. Patients may inform this preliminary work, as in the previously featured EIFFEL study, where patients supply observations on perceived similarities or differences between their experiences of fatigue in different medical conditions and thus to influence how data ultimately is organised and presented (Box 11.1). The review team explores relationships both within and between studies. Ultimately the hands of the review team may be tied to choice of method based on whether available data is conceptually rich and contextually thick. If this is the case, then a greater number of choices is available including meta-ethnography. Where qualitative data sources offer minimal data, as in thin case study reports published in professional journals, the potential for a rich interpretation is compromised. Thin data is unlikely to be able to sustain meta-ethnography. More superficial approaches, such as thematic synthesis, become an appropriate alternative.

Typically, an HTA review team defaults to thematic synthesis unless a framework (from an included study or conceptual paper) is readily identifiable (Dixon-Woods 2011). Outputs from some methods of synthesis (including *Thematic Synthesis* and *Framework Synthesis*) are "more directly relevant to policymakers and designers of interventions than the outputs of methods with a more constructivist orientation (*such as meta-ethnography*) which are generally more complex and conceptual" (Barnett-Page and Thomas 2009, p. 9). Should the data be rich enough and thick enough then the team can switch from thematic synthesis to meta-ethnography, using the work already completed from their preliminary synthesis as the first stage of a more complex and interpretative meta-ethnography.

11.4.7 Full Synthesis

All QESs, regardless of synthesis method, provide an accompanying narrative and supporting evidence tables. Typically, these start with data on the study characteristics within Excel or some spreadsheet alternative. The verbatim extracts from

participants and the accompanying observations from the study authors are either extracted into an extraction form or coded within a qualitative analysis package. The principal idea behind all synthesis is being able to 'spot' patterns—whether these are common findings across multiple studies or an isolated context or study which proves an exception to a 'rule'.

11.4.8 Dissemination

HTA QES are typically produced as chapters within a larger HTA report with only a proportion of these proceeding to publication in peer-reviewed journals. Ultimately, the intended audience should shape the methods chosen for dissemination. Numerous options exist for visual presentation of data (Bianchim et al. 2024). It is important to consider how patients may be able to benefit from findings, and how best to present these. Plain language is essential. and creative use of illustrations and videos may be beneficial. Patients can contribute to producing plain language resources, and advise on channels of dissemination. The review team assesses the strengths and limitations of the review itself and of the body of included studies. Optimally, all stakeholders are consulted so that emerging findings become an organic product of knowledge co-creation. In recent years synthesis findings have been presented as first person statements, as poems and in the form of artworks, further emphasising the versatility of QES methods. However, stakeholders may not recognise the entirety of the synthetic findings given that they often possess only a fragmented, yet valid, perspective.

11.4.9 Whole Process Considerations

Throughout the process the multidisciplinary team brings together their different perspectives not for consensus, as for multiple reviewers in an effectiveness review, but for divergence and interpretive richness (Booth et al. 2013a). Reflexivity, and the related concept of positionality, require that review team members consider how their own role as researchers impacts on both process and product (Downe et al. 2019) and how they have positioned themselves in relation to the studies that they are reviewing. It has been recommended that reflexivity (See Chap. 3) be both prospective, at the beginning of the review, and retrospective in assessing how each person has contributed to the review (Glenton et al. 2022). Particular examples are available in the journals literature or within the Cochrane protocol and review QES template (Glenton et al. 2021). Even though the QES is iterative and recursive this does not exempt it from needing careful documentation of methods and decisions to increase confidence in the findings (Benoot et al. 2016).

The movement of QESs into HTAs and guideline production has served as a stimulus to for development of the GRADE-CERQual four-component approach

that assesses individual review findings for adequacy, coherence, methodological limitations and relevance. Assessments of the findings from a QES are designed to parallel GRADE, whereby quantitative findings have previously been assessed against four corresponding components.

11.5 Conducting Time-Sensitive QES

Prior to the COVID-19 pandemic, several HTA bodies were experimenting with rapid QES formats (Campbell et al. 2019). In actuality, limited time is only one factor that might require an alternative to a full conventional QES. For example, HTA bodies in low- and middle-income countries may decide to conduct reviews across fewer databases or may limit included studies to readily available full-texts. As public-funded agencies HTA bodies carry a strong moral imperative to ensure that all research into patient aspects is published for reuse and wider benefit. During the pandemic, large numbers of rapid reviews were undertaken, both quantitative and qualitative. Subsequently, expanded methodological guidance on rapid reviews has been produced by organisations such as Cochrane (Booth et al. 2024).

Overviews of QESs may offer an option for topics well-covered by existing QESs, such as obesity, HIV, and pain. Others have proposed the model of the living QES, periodically updated as evidence becomes more prevalent (Carmona et al. 2023). These three different variants (rapid QES, overviews of QES and living QES) are all considered in a separate chapter of the *Cochrane-Campbell Handbook of Qualitative Evidence Synthesis* (Noyes and Harden 2026).

11.6 Integrating Qualitative with Quantitative Data

Given the multiple facets covered by the core HTA model it is unsurprising to see that the integration of quantitative and qualitative data remains the outstanding methodological challenge. Such integration allows a review team to produce evidence products to inform complex HTA problems. Linking mechanisms, either overarching methodologies or practical methods, can be employed to harness patient perspectives to effectiveness data (Noyes et al. 2019) (Table 11.2).

These methods for integrating quantitative and qualitative data remain tentative with few worked examples. At present the QES as a stand-alone chapter within an HTA remains the dominant model and, in doing so, sidesteps methodological difficulties.

Table 11.2 Mechanisms for linking patient perspectives to effectiveness data

Methodology	Methods
Use realist synthesis (what works under what circumstances for whom)	Identify a conceptual framework from the literature as a scaffold for both types of data
Use meta-narrative to explore how quantitative and qualitative studies relate to disciplines and paradigms	Use an internally generated framework from stakeholder consultation
Use qualitative comparative analysis (truth tables) to explore how qualitative factors exert their influence on quantitative outcomes	Use a simple matrix to juxtapose themes (qualitative) with outcomes (quantitative)
	Use a programme theory as a causal map
	Construct a logic model and map quantitative and qualitative data against it.
	Perform subgroup analyses to bring quantitative and qualitative data together for particular subgroups

11.7 Discussion

Since the preceding edition of this book, QES has maintained its place as one of the fastest growing areas of research synthesis methodology. Adoption by health technology organisations, although steady, has not yet matched this accelerated pace. Valuing the patient experience in society requires incorporation of patient values and perspectives in the decision-making process. Without the essential contribution of patients many health technologies may not be fit for purpose or used as intended.

The relationship between QES and patient and public involvement should never be uni-directional—patients and the public can be actively involved in improving the design, analysis and salience of QES (Oliver et al. 2015)—even extending to co-production where feasible (Merner et al. 2023). While it may be very challenging to manage the timing, extent and nature of patient involvement within a QES, particularly within a time-constrained context, there is heightened realisation that this time is particularly well-spent. This chapter attempts to demonstrate and give examples of best practise in this area.

11.8 Conclusion

As with other methods of synthesis, QES is limited by the quality of reporting of primary studies. Primary research questions from included studies may only map partially to the broader concerns of a QES or such studies may only contribute minimal amounts of relevant data. Innovations, such as rapid QES and overviews of

QES continue to demonstrate the versatility and feasibility of QES methods. Grading recommendations in a GRADE-comparable manner using the GRADE-CERQual approach, and developing a transparent approach to quality assessment through CAMELOT may help to put qualitative synthesis on a comparable footing to its quantitative counterparts.

Acknowledgements Both authors acknowledge membership of the National Institute for Health and Care Research (NIHR) funded project Effectiveness of Interventions For Fatigue in Long term conditions (EIFFEL) project. Principal Investigators: Professor Chris Burton and Dr. Jo Leaviss.

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