

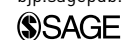


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Original Article

Qualitative systematic reviews: their importance for our understanding of research relevant to pain

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Abstract

This article outlines what a qualitative systematic review is and explores what it can contribute to our understanding of pain. Many of us use evidence of effectiveness for various interventions when working with people in pain. A good systematic review can be invaluable in bringing together research evidence to help inform our practice and help us understand what works. In addition to evidence of effectiveness, understanding how people with pain experience both their pain and their care can help us when we are working with them to provide care that meets their needs. A rigorous qualitative systematic review can also uncover new understandings, often helping illuminate ‘why’ and can help build theory. Such a review can answer the question ‘What is it like to have chronic pain?’ This article presents the different stages of meta-ethnography, which is the most common methodology used for qualitative systematic reviews. It presents evidence from four meta-ethnographies relevant to pain to illustrate the types of findings that can emerge from this approach. It shows how new understandings may emerge and gives an example of chronic musculoskeletal pain being experienced as ‘an adversarial struggle’ across many aspects of the person’s life. This article concludes that evidence from qualitative systematic reviews has its place alongside or integrated with evidence from more quantitative approaches.

Keywords

Qualitative systematic review, meta-ethnography, qualitative synthesis

Many of us use evidence of effectiveness for various interventions when working with people in pain. A good systematic review can be invaluable in bringing together research evidence to help inform our practice and help us understand what works. In addition to evidence of effectiveness, understanding how people with pain experience both their pain and their care can help us when we are working with them to provide care that meets their needs. A high-quality qualitative systematic review can also uncover new understandings, often helping illuminate ‘why’ and can help build theory. A qualitative systematic review could answer the question ‘What is it like to have chronic non-malignant pain?’

The purpose of this article is to outline what a qualitative systematic review is and explore what it can contribute to our understanding of pain. A qualitative

systematic review brings together research on a topic, systematically searching for research evidence from primary qualitative studies and drawing the findings together. There is a debate over whether the search needs to be exhaustive.^{1,2} Methods for systematic reviews of quantitative research are well established and explicit and have been pioneered through the Cochrane Collaboration. Methods for qualitative systematic reviews have been developed more recently

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and are still evolving. The Cochrane Collaboration now has a Qualitative and Implementation Methods Group, including a register of protocols, illustrating the recognition of the importance of qualitative research within the Cochrane Collaboration. In November 2013, an editorial described the Cochrane Collaboration's first publication of a qualitative systematic review as 'a new milestone' for Cochrane.³ Other editorials have raised awareness of qualitative systematic reviews in health.⁴

Noblit and Hare⁵ were pioneers in the area of synthesising qualitative data. They describe such reviews as aggregated or as interpretative. The aggregated review summarises the data, and Hannes and Pearson⁶ provide a worked example of an aggregation approach. Interpretative approaches, as the name suggests, interpret the data, and from that interpretation, new understandings can develop that may lead to development of a theory that helps us to understand or predict behaviour. Types of interpretative qualitative systematic reviews include meta-ethnography, critical interpretative synthesis, realist synthesis and narrative synthesis. More details about these and other approaches can be found in other papers and books.^{1,5,7-11} This article will describe one approach, meta-ethnography, as it was identified as the most frequently used approach,¹ and there are some examples using meta-ethnography that focus on pain. A meta-ethnographic approach can be used with a variety of qualitative methodologies, not only ethnography. The data for a meta-ethnography are the concepts or themes described by the authors of the primary studies.

Noblit and Hare⁵ outlined the seven steps of a meta-ethnography: (1) getting started, (2) deciding what is relevant, (3) reading the studies, (4) determining how studies are related to each other, (5) translating studies into each other, (6) synthesising translations and (7) expressing the synthesis.

The first three might seem relatively straightforward, although Lee et al.¹² emphasised both the importance and nuances of the reading stage, and Toye et al.¹³ discuss the complexities of making quality assessments of qualitative papers and searching for this type of study. You need to understand what data to extract from the papers and how you are going to do this.

You have to first identify what is a concept and what is purely descriptive. Toye et al.² describe a process for collaboratively identifying concepts. In determining how studies are related to each other and translating them into each other, the meta-ethnographer compares the concepts found in each study with each other and then groups similar concepts into conceptual themes. Translating studies into each other involves looking at where concepts between studies agree (reciprocal synthesis) and where they do not agree (refutational

synthesis). Developing conceptual categories can be challenging as you need to judge the extent to which a concept from one study adequately reflects concepts from other studies and choose one that seems to fit best. This is discussed in more detail in Toye et al.^{2,13}

To synthesise the translation, a line of argument is then developed from the conceptual categories. How the concepts group and relate to each other are developed. This provides an overall *interpretation* of the findings, ensuring this is grounded in the data from the primary studies. You are aiming to explain, and new concepts and understandings may emerge, which can then go on to underpin development of theory. For example, a qualitative systematic review that explored medicine taking found that 'resistance' was a new concept, revealed through meta-ethnography, and this helped understanding of lay responses to medicine taking.¹ Hannes and Macaitis,¹⁴ in a review of published papers, reported that over time, authors have become more transparent about searching and critical appraisal, but that the synthesis element of reviews is often not well described. Being transparent about decisions that are interpretative has its own challenges. Working collaboratively to challenge interpretations and assumptions can be helpful.^{2,12} The next section will use examples of qualitative systematic reviews from the pain field to illuminate what this type of review can contribute to our understanding of pain.

What can a qualitative systematic review contribute to the field of pain – some examples

Toye et al.^{2,15} undertook a meta-ethnography to look at patients' experiences of chronic non-malignant musculoskeletal pain. At the time of this research, no other qualitative systematic reviews had been published in this area. Their review included 77 papers reporting 60 individual studies, resulting from searches of six electronic bibliographic databases (MEDLINE, EMBASE, CINAHL, PsycINFO, AMED and HMIC) from inception until February 2012 and hand-searching key journals from 2001 to 2012.

They developed a new concept which they identified as an 'adversarial struggle'. This struggle took place across five main dimensions: (1) there was a struggle to affirm themselves, where there was a tension between the 'real me' (without pain) and 'not real me' (me with pain). (2) The present and future were often unpredictable, and construction of time was altered and they struggled to reconstruct themselves in time. (3) People struggled to find an acceptable explanation for their pain and suffering. (4) There was a struggle to negotiate the healthcare system and (5) a struggle for pain to be seen as legitimate, including the need to be believed,

and a struggle to know whether to show or hide their pain. Some people were able to move forward with pain. They saw their body as more integrated, they re-defined what was normal, they told people about their pain, they were part of a community of people with pain and they felt more expert on how their pain affected them and what they could do about it.

So, this meta-ethnography highlighted the adversarial nature of having chronic musculoskeletal pain and how this struggle pervaded many different areas of their life. It also illustrated how by showing patients their pain is understood and being alongside the person in pain, they can start to move forward. A short film based on the 77 papers in this meta-ethnography has been made and is available on YouTube.¹⁶ This film was made as an attempt to disseminate the findings of a meta-ethnography in a way that is accessible to a range of people.

Snelgrove and Lioffi¹⁷ undertook a meta-ethnography of qualitative research in chronic low back pain (CLBP) using meta-ethnography. They included 33 papers of 28 studies published between 2000 and 2012. They identified three overarching themes of (1) the impact of CLBP on self, (2) relationships with others (health professionals and family and friends) and (3) coping with CLBP. They found that very few successful coping strategies were reported. Like Toye et al.,^{2,15} they also reported disruption to self, distancing their valued self from their painful self, legitimising pain, the struggle to manage daily living and the importance of social relationships alongside negotiation of their care in the health system.

MacNeela et al.¹⁸ also undertook a meta-ethnography of experiences of CLBP. They included 38 articles published between 1994 and 2012 representing 28 studies. They identified four themes: (1) the undermining influence of pain, (2) the disempowering impact on all levels, (3) unsatisfying relationships with healthcare professionals and (4) learning to live with the pain. They reported the findings being dominated by 'wide-ranging distress and loss'. They discussed the disempowering consequences of pain and a search for help. However, they also highlighted self-determination and resilience and suggested these could offer 'pathways to endurance'. They emphasised self-management and adaptation, which resonates with the moving forward category reported by Toye et al.^{2,15}

Froud et al.¹⁹ looked at the impact of low back pain on people's lives. They describe their approach as meta-ethnographic and meta-narrative. They included 49 papers of about 42 studies from inception of databases searched until July 2011. They described five themes: activities, relationships, work, stigma and changing outlook, which they derived from 'participant-level data'. They described their findings as showing patients wanted to be believed. They highlighted the importance

of social factors when developing relevant outcome measures. There are other examples of qualitative systematic reviews relevant to pain.²⁰⁻²³

Different qualitative systematic reviews on a similar subject may come up with overlapping but also some different findings. This could be, for example, because different search periods or different inclusion criteria are used, so different primary studies may be included in different reviews. In addition, undertaking a qualitative systematic review requires researchers to interpret concepts. This interpretation does not need to be a limitation. For example, to ensure rigour and transparency, Toye et al.²⁴ report a process of collaborative interpretation of concepts among a team of experienced qualitative researchers to ensure individual interpretations were challenged and remained grounded in the original studies. They also published a detailed audit trail of the processes and decisions made.² Campbell et al.¹ argue 'Meta-ethnography is a highly interpretative method requiring considerable immersion in the individual studies to achieve a synthesis. It places substantial demands upon the synthesiser and requires a high degree of qualitative research skill'. It is important to be able to think conceptually when undertaking a meta-ethnography, and it can be a time-consuming process. However, the ability of a meta-ethnography to synthesise a large number of primary research studies, generate new conceptual understandings and thus increase our understanding of patients' experiences of pain makes it a very useful resource for our evidence-based practice.

The way forward

A register of qualitative systematic reviews would be useful for researchers and clinicians, so there was a clear way of identifying existing qualitative reviews or reviews that are planned or underway. The Cochrane Collaboration does now have a register for protocols of qualitative systematic reviews being undertaken under the aegis of the Cochrane Qualitative and Implementation Methods Group. It would help those wanting to undertake qualitative systematic reviews if reviews that were underway were registered and described more clearly to prevent duplication of effort, for example, using 'qualitative systematic review' and the methodological approach used (such as meta-ethnography) in the title and/or abstract. The Toye et al.² protocol²⁵ was accessible on the National Institutes for Health website from 2010. The Snelgrove and Lioffi¹⁷ study was done without external funding, so it would be difficult to pick up that it was underway. The MacNeela et al.¹⁸ study was listed on the Irish Research Council for the Humanities and Social Sciences under their Research Development Initiative 2008-2009, but was described as 'Motivation

and Beliefs among People Experiencing Chronic Low Back Pain', so it was not clearly identified at that stage as a qualitative systematic review. Finally, the Froud et al.¹⁹ award details²⁶ do not mention qualitative systematic reviews or meta-ethnography. This highlights the difficulty of finding some of these reviews and the importance of a register of both completed and ongoing reviews.

This article has argued that qualitative systematic reviews have their place alongside or integrated with more quantitative approaches. There is an increasing body of evidence from qualitative systematic reviews. They can synthesise primary research, and this can be helpful for the busy practitioner. The methods for these approaches are still developing, and attention to rigour at each stage is crucial. It is important that each stage of the synthesis is reported transparently and that the researchers' stance is clearly reported.²⁷ Meta-ethnographies published over the last year^{2,15,17-19} have drawn together a wide range of primary studies and shown that people's lives can be markedly changed by their pain across multiple dimensions of their life.

Declaration of Conflicting Interests

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