International Journal of Qualitative Methods

INTERNATIONAL INSTITUTE FOR QUALITATIVE METHODOLOGY (IIQM)
UNIVERSITY OF ALBERTA

Article

Conducting Qualitative Metasynthesis Research: Insights from a Metasynthesis Project

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Abstract

The need to synthesize qualitative research in order to inform fields of study has been highlighted as a critical imperative in recent years. Since that time, there have been a number of attempts to identify methodological approaches to achieving such a goal. Despite some notable efforts in this regard, the metasynthesis research approach continues to be somewhat

elusive with regard to its steps and procedures. The authors of this article describe their experience conducting a metasynthesis of qualitative research regarding transformation in chronic illness and disability. The particular emphasis of the article will be the practical strategies and procedures that assisted them in conducting the project in a rigorous and meaningful way. The authors emphasize the need for continued dialogue about strategies and procedures in metasynthesis that will aid researchers who are contemplating this complex research approach.

Keywords: metasynthesis, qualitative research, research methodology

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Metasynthesis is a term that encompasses a variety of approaches to synthesize a number of qualitative research studies within a particular field of study (Lloyd Jones, 2007). The need to synthesize bodies of qualitative research to generate new knowledge and to inform what we know about particular phenomena was highlighted by many notable researchers (Jensen and Allen, 1996; Kirkevold, 1997; Schreiber, Crooks, & Stern,1997). However, early attempts to explicate metasynthesis were often vague and not particularly illuminating to researchers who were unfamiliar with the method (Paterson, Thorne, Canam, & Jillings, 2001).

In the past decade, there have been several efforts to develop the research method of metasynthesis to inform researchers about how they can plan and implement metasynthesis research in a rigorous and realistic manner. Texts now exist that provide procedural steps to inform researchers about how to plan and implement metasynthesis research (e.g., Paterson, Thorne, et al., 2001; Sandelowski & Barroso, 2007; Webb & Roe, 2007). However, each of the authors of these texts has acknowledged the complexity and challenges that continue to haunt researchers who attempt metasynthesis. Together they have called for further explication of the method to contribute to an improved understanding of how best to address such challenges. They have invited other metasynthesis researchers to make such a contribution by entering into the debates about the method and sharing the insights they have gained about the method in their experience with metasynthesis.

In 2006 we, as a team of six researchers, launched a funded research project that entailed a metasynthesis of 43 published qualitative research reports pertaining to the transformative process in chronic illness or disability. The project had been inspired by the researchers' concerns about the conflicting and ambiguous ways that transformation had been understood within the chronic illness and rehabilitation fields. The researchers believed that a metasynthesis of the relevant qualitative research would contribute to refining and clarifying what the transformation process was and what it entailed. One of the investigators on the team was the lead author of a groundbreaking text about metasynthesis (Paterson, Thorne, et al., 2001); the others were academic or community researchers in the fields of rehabilitation, psychology, and education.

The purpose of this article is to identify the significant insights we learned about conducting qualitative metasynthesis research that extend and challenge some of the insights offered by the current texts on the research method. We will begin with a brief description of our journey as meta-synthesis researchers in the three year study. Following this, we will identify four insights we gained about such research. Throughout the article, we will argue that there is a critical need for researchers who conduct metasynthesis research to share their experiences and learning to fully develop the method.

About the project

The research was a metasynthesis of published qualitative research reports (i.e., primary research reports) regarding the experience of transformation as related in interviews and other methods with people with chronic illness and/or disability. *Transformation* in this context refers to changes that people with chronic illness and/or disability make in the way they regard their illness/disability and how they assign meaning to the experience of living with the illness/disability. The central aim of the research was to determine the fit and applicability of Mezirow's (1991) transformative learning theory, originally intended to explain transformation in an educational context, with the transformative process experienced by people who live with a chronic disease and/or disability.

The metasynthesis approach that we used was that of metastudy (Paterson, Thorne, et al., 2001). The procedures of metastudy are detailed in a book written by Paterson, Thorne, and colleagues (2001) and illustrated in several published articles (Paterson, 2001, 2003; Paterson, Canam, Joachim, & Thorne, 2003; Paterson & Thorne, 2003; Thorne & Paterson, 1998; Thorne, Paterson, et al., 2002) and a book chapter (Paterson, 2007).

Basically, metastudy involves three analytic phases (meta–data analysis, metamethod, and metatheory), in which the findings, research designs, and theoretical frames of primary research (i.e., the research reports that are synthesized) are compared and contrasted. In the synthesis phase, the findings of the analytic phases are considered in light of the historical, sociocultural, and disciplinary context in which the primary research was conducted. This phase can be described as "digging deep to generate new knowledge about the phenomenon under study" (Paterson, 2007, p. 76).

The body of primary research that was represented in the metastudy research included 43 research reports published in refereed journals during the years 1990 to 2007 that met the following criteria: (a) focused on perspective transformation, personal change, or learning processes in relation to the experience of living with a chronic illness or disability; (b) included only adult participants; (c) used one or more qualitative research approaches; and (d) supported the research findings with relevant quotes or other qualitative data.

The project was led by Claire-Jehanne Dubouloz, a university professor in the field of medical rehabilitation. The research team members represented a variety of disciplines and were either university or hospital based. All but one of the members of the research team lived in the same city or its surrounding areas. The investigator who lived in another area of the country, lived a considerable distance away (3 hours by air). Two members of the team, both doctoral students at the outset of the research, assumed the role of project coordinator and research assistant.

We as the research team met in person as an entire group at least twice a year for 2 intensive days during the 3years of the study. In addition, we communicated regularly (at least monthly) by teleconference and e-mail. We used a Web-based program (WebCT) to communicate with each other, share articles and analyses, and store minutes of meetings and pdfs of the published primary research reports included in the metastudy. The researcher who lived some distance away attended at least two in-person meetings with the research team. Each in-person meeting was 2 days in length. We found that telephone and e-mail were sufficient to raise issues, provide directions, and communicate how the team members were achieving agreed-on deadlines; however, in-person meetings were integral to the in-depth discussions that are needed for the analyses and synthesis components of metastudy. As well, we discovered that being able to "read" the nonverbal expressions of team members was important in signaling that someone was

unsure, required further explanation or discussion, or held different views that what the others had agreed. We did not attempt to hold team meetings by videoconference but recognize that this might have provided an alternative to in-person meetings.

Insights

Although many insights about the phenomenon of study arose from the metasynthesis research, we have chosen instead to focus herein on those that relate directly to how to conduct metasynthesis research. In the following section, we will discuss four of our most significant insights: the nature of the research team, the development of protocols and procedures, the use of schematic representations, and the unexpected outcomes.

Nature of the research team

The classic text on metasynthesis by Paterson, Thorne, and colleagues (2001) recommended that the metasynthesis research team include researchers who offer different disciplinary and methodological expertise. We now believe that disciplinary and methodological diversity is insufficient in a metasynthesis research team. Because of our experience as metasynthesis researchers, we believe that the diversity of the research team members should extend interdisciplinarity and methodological diversity to include differences in research experience and perspectives about research and the phenomenon under study.

Our differences contributed in a significant way to the quality of our synthesis of the primary research. For example, just as Paterson, Thorne, and colleagues (2001) suggested, our different disciplinary perspectives often led to important insights that we might not have uncovered if we were from the same discipline. It was during our discussions of the primary research reports that questions arose from the persons on the team who were education specialists about why researchers in nursing assumed that nurses would transform the person, but researchers in rehabilitation fields assumed that transformation was a personal journey that could only be supported by health care practitioners. This difference was not immediately apparent to those of us in nursing or rehabilitation. However, this insight was critical to our understanding of transformation research as a constructed reality that is in part shaped by the disciplinary perspective of the researcher.

Other differences between the members of the research team led to equally important insights. The team consisted of people who had various levels of experience as researchers. Two members of the team were doctoral students, and one was a new doctoral graduate, but others were long-term university faculty, heads of their university or hospital department, or research chairs. Paterson, Thorne, and colleagues (2001) proposed that the team should consist of members who were well-versed in research methodologies, theoretical perspectives, and the content area of the metasynthesis. Our experience demonstrated that a balance between those who are experienced and those who are novice researchers is likely to produce salient insights that add to the depth of the synthesis. For example, the novices in our team were often the ones who asked questions about elements of the primary research that the rest of us took for granted. On one such occasion, a novice researcher posed the question, “Why do people have to transform anyway?” This led to a fruitful discussion of the underlying assumption of much of the primary research that transformation was the ideal in chronic illness and disability. This, in turn, led us to examine why such an assumption would exist and how it might influence health care practitioners’ interactions with those who live with chronic illness or disability.

An additional "difference" that proved to be beneficial to the synthesis activities was that some of the research team were based in clinical settings (i.e., rehabilitation units) and others were academics. We discovered that having to explain our clinical or academic world to the other assisted us to be clearer about some elements of the synthesis project. It often prompted us to ask questions of the primary research that might have been overlooked if we were all academics or all clinicians. For example, a clinically based researcher asked the academic researchers why a theoretical framework was important in conducting qualitative studies about transformation. This led to us to discover that the frameworks that primary researchers used in their research were most often not reflective of the clinical realities of hospitals and rehabilitation centers in which practitioners were expected to assist in the transformation process. Educational theory, for example, did not include consideration of how the patient role in a hospital would shape the transformative experience.

The clinicians on the research team encouraged the academics to focus on the clinical relevance of the findings of the metasynthesis. They stressed that health care practitioners often find research to be irrelevant to their everyday world and that it was important that we translate our research findings to practitioners in such a way that they would be convinced of the relevance to their practice. Consequently, early on in the project, we determined that relevance to clinicians would be an important criterion to determine the quality of our synthesis.

People on the team differed according to their perspective about how research should be conducted and the type of research with which they were most comfortable. The synthesis in metasynthesis research is often prolonged, and there are few guidelines about how to achieve it. One team member stated, "You are never sure you know where you are going until suddenly, you're there." One member of the research team left the study shortly after its beginning. His reasons for leaving were largely due to the lack of structure in metasynthesis research. This experience revealed that the ambiguity and lack of definitive structure that is inherent in metasynthesis research might be difficult for researchers who prefer more systematized research approaches. In retrospect, we learned that when researchers are being recruited to be a member of a metasynthesis team, the person who is recruiting should discuss the ambiguity/lack of structure in metasynthesis with the potential team member.

The protocols and procedures

Initially we relied on the insights and tools offered by Paterson, Thorne, and colleagues (2001) and other metasynthesis researchers (e.g., Sandelowski & Barroso, 2003) about how to conduct such research. We referred to these when we described how the research would proceed in our proposal for funding to the granting agency. However, we soon discovered that our expectations about what is done in metasynthesis research changed once the research was begun.

Some of the adaptations that we made to our original plans occurred after our first meeting, during which an expert in metasynthesis provided an intensive 2-day workshop on the research approach. During that workshop, we discussed the need to revise many of the known protocols and procedures of metasynthesis because of the unique nature of our research team and how we best worked together. For example, one of the members of the team lived a great distance away from the others. Others had commitments, such as being visiting scholars in other countries, which prohibited frequent in-person research team meetings. Our decision about how best to conduct reviews of the primary research and to communicate with each other took this into account. Consequently, all primary research reports, minutes of research team meetings, and the

appraisals of primary research conducted by individual team members were located on a password-protected website. Team meetings occurred in a combination of in-person and teleconference meetings.

Other adaptations to the metasynthesis protocols and procedures evolved as we attempted to follow the ideas of others (e.g., Paterson, Thorne, et al., 2001; Sandelowski & Barroso, 2007) but discovered they did not meet our needs or interests. For example, initially we adopted the appraisal tool offered by Paterson, Thorne, et al. to review each primary research report. At the outset of the research, all team members were given this tool and the same five primary research reports to appraise. We then shared our experience about the use of the tool in a teleconference. This exercise led us to many important insights. For example, we learned that many of the items in the tool were not relevant to the purposes of our research; for example, ethical considerations were not an area of focus for the research. The appraisal tool developed by Paterson, Thorne, and colleagues required researchers to identify all the findings as reported by the primary researcher. However, many of the findings were not relevant to our research question. For example, many of the primary researchers included data regarding the person's diagnosis experience that was unrelated to transformation. We revised the findings section of the tool to include only data that pertained to transformation.

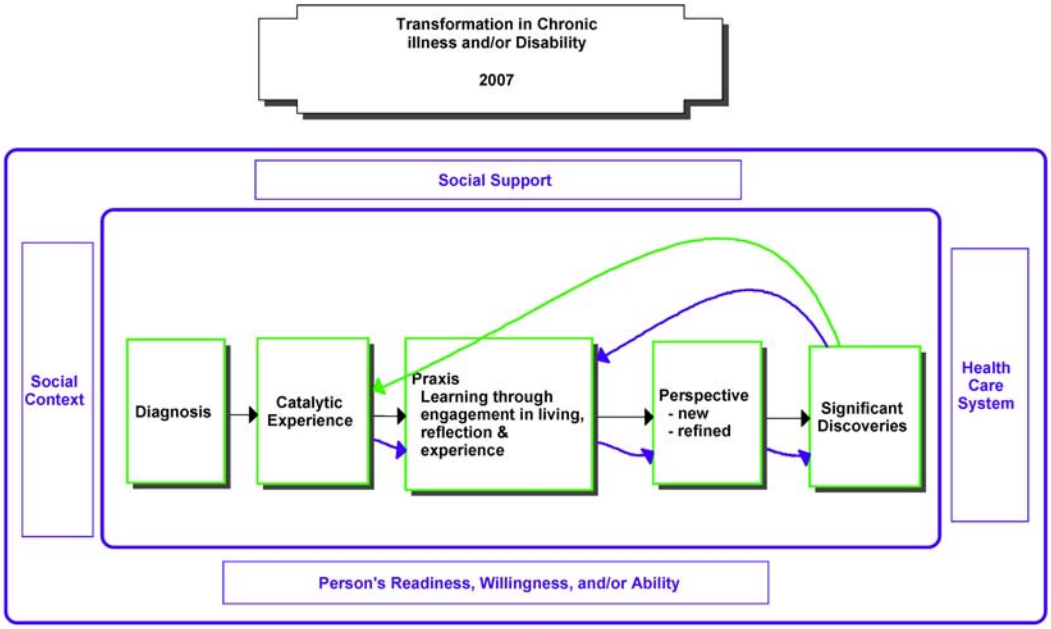
We also learned that some of the items in the tool were not matters of opinion but facts clearly described in the primary research report (e.g., recruitment measures used, number of people in sample). These items were time consuming to type in the appraisal tool. Consequently, we delegated the task of completing the appraisal tools for these items to our project coordinator and research assistant. Their insertions of factual information in the appraisal tools were reviewed by the principal investigator. The researchers received the appraisal tools that were partially completed, and they could then concentrate on responding to items that were less clear cut and required their skilled interpretation (e.g., how theoretical framework was used in the study, clarity and appropriateness of data categories).

Schematic representations

Paterson, Thorne, et al. (2001) referred briefly to the use of schematics to represent the evolving synthesis of the primary research as the study progresses. Our experience illustrates that the schematic representations of our understanding of the phenomenon under study provided documentation of the evolution of our thinking and a basis on which to compare particular elements of the research data. At every meeting of the research team, we projected our findings by means of LCD display from a laptop computer onto a wall for all to see, to develop a schematic of what we were finding in the steps of the metasynthesis. The schematics indicated the sources of the information contained in the diagram (i.e., the code number assigned to the primary research report from which the information had been obtained). Schematics, accompanied by a narrative account of our decision making, also provided an audit trail of our decisions, including identifying the primary research from which we derived our interpretations. Figures 1 and 2 are two different variations of a schematic that we developed over the course of a year to represent how transformation was portrayed by the primary researchers.

At least once a year, the research team compared the schematic representations of the transformation process in chronic illness and/or disability, noting the differences and similarities between them. This often generated more insights or caused us to return to the data to ensure that our interpretation was grounded in the primary research. For example, in reviewing a schematic of the representation of transformation in chronic illness and/or disability, we noted that the

Figure 1. Schematic of transformation in chronic illness and/or disability 2007

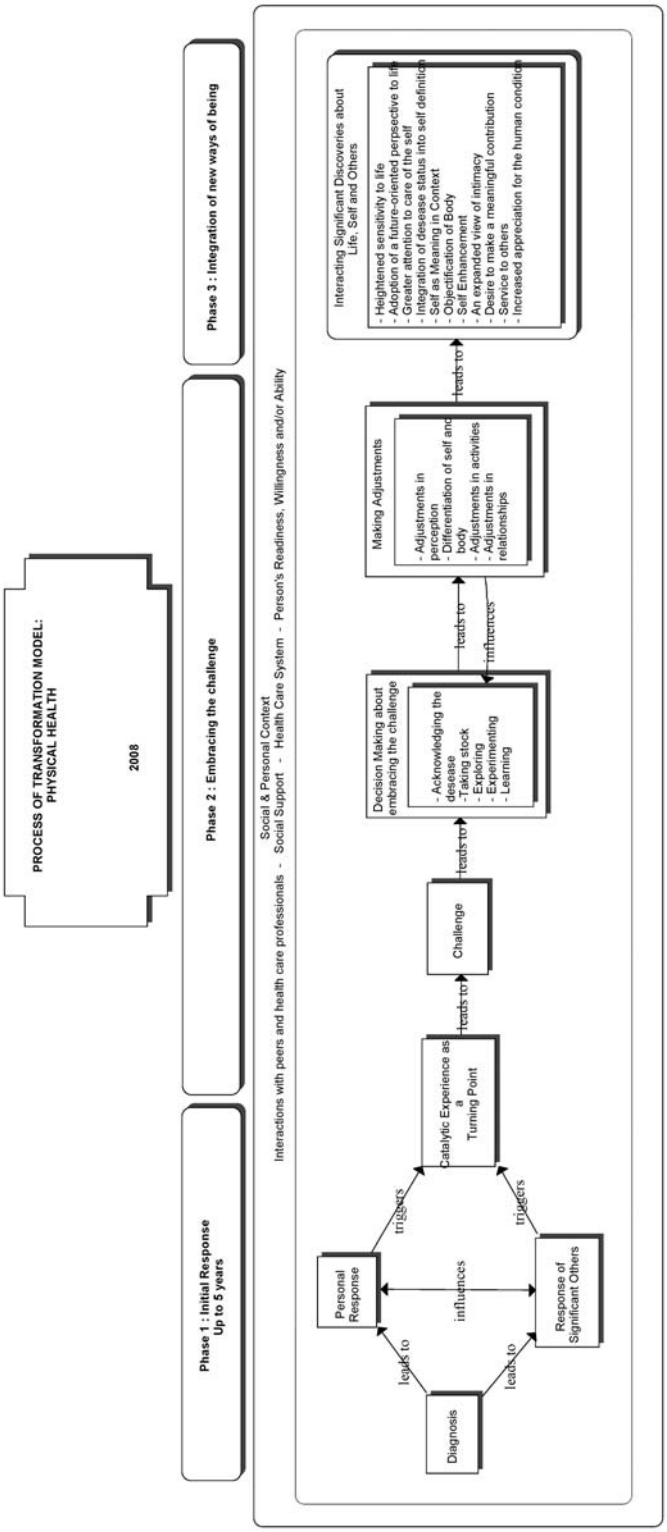


schematic could be neatly divided into two sections; transformation in physical health conditions and transformation in rehabilitation settings. This led us to examine in depth the differences between these two representations and why they occurred. These insights were to prove critical to our synthesis of the primary research because they illustrated how the context of rehabilitation versus hospital care shapes the construction of transformation as a patient or a practitioner responsibility.

Unexpected outcomes

Although Sandelowski and Barroso (2003; 2007) and Paterson, Thorne, et al. (2001) wrote about the benefits of metasynthesis research to the field of study and to the researchers` development as qualitative researchers, the outcomes of our metasynthesis project included some rewards that we had not anticipated. One of these was that the experience required us to develop skills of interdisciplinarity. The research method of metasynthesis, perhaps more than any other, requires that the researchers be willing to debate with each other in a respectful but open manner. It requires that they truly listen to others' perspectives and grapple with difficult issues in qualitative research. Many times, it requires that researchers be willing and able to risk voicing opinions not shared by everyone else in the group.

Figure 2. Schematic of transformation in physical health 2008



To engage in the collaborative thinking and decision making that this method requires, we had to be open to being truly interdisciplinary (Hall et al., 2006). This meant that not only were we learning from each other about our disciplinary and experiential knowledge, but we were required to question our individual assumptions about the phenomenon under study and qualitative research in general. For example, we discovered that all of the primary research from the field of rehabilitation had been framed by Mezirow's (1991) educational theory and that all the primary researchers in the field had received a graduate degree in education. The investigators who were not familiar with Mezirow's theory questioned whether the findings were truly validating of the theory or whether the theory had simply been imposed on the findings by the primary researchers. This led to a fascinating discussion of the place of theory in qualitative research and the ways in which disciplinary knowledge could be more effectively shared with other disciplines. As Hall and colleagues (2006) determined in their analysis of interdisciplinary health research in Canada, the skills of interdisciplinarity are not often included in graduate curricula in universities. Participating in a metasynthesis research project might be one way to attain those skills.

Another outcome of our experience with metasynthesis research was that we developed strong friendships. Many of our research team did not know the other team members well before the research project. At the initial workshop, we discussed how important it was that each researcher feels respected and valued by other members of the team. We reasoned that people who did not feel this way would be unlikely to disagree with or question the other team members; this would compromise the rigor of metasynthesis research. We determined that we would engage in team-building activities, such as sharing meals together, to develop an increasing comfort and familiarity with one another. In addition, we established a culture whereby all members of the research team modeled the need to continually question their personal reactions to what they read in primary research reports or heard in research team meetings. This led to an expectation that every member would engage in public (i.e., out loud within the research team) reflection and that no one member had all the right answers.

During the course of the research, it was essential to understand people's backgrounds, experience, and passions to fully understand their perspectives about the primary research and to follow their thinking when they were arguing points of discussion. For example, an expert in chronic illness on the team made the following comment one day:

> I think that expecting people to transform is a way in which we can blame people with chronic illness for not being able to cope with their illness. It completely overlooks the systems and structures that cause people not to do well with their disease.

When the other team members asked her to explain, they also asked her to make visible her reasoning ("What have you learned about chronic illness that makes you say that?"). This required that she discuss what she had learned over many years of conducting research in the area. Not only did this discussion provide more detail than we had previously about her work, it led us to appreciate her contribution to the field. In addition, it caused us to revisit our data to locate any evidence that the primary researchers had considered structural and institutional factors that might enhance or constrain a person's ability to experience transformation. We recognized, however, that we would not have had such a discussion early in the project because we did not know one another well enough to risk her interpreting our questions as finding fault with her assertion. We also recognized that the team building we had committed to in the project had contributed greatly to the development of trust and rapport among the team. This, in turn, had increased the risk taking that team members were willing to engage in during research discussions.

Discussion

In an effort to provide structure and certainty for novice metasynthesis researchers, some authors, such as Paterson, Thorne, et al. (2001), have attempted to provide a list of "how tos" to conduct metasynthesis research. Inadvertently, this has contributed to an understanding of metasynthesis research as contained and somewhat formulaic. However, we now recognize that metasynthesis research can be only partially defined by its procedural steps. This is because its nature is determined to a considerable extent by the people in the research team and the nature of relationships they have with each other. As our experience has illustrated, this research method is evolving, relational, and creative. Such descriptors have been relatively absent in descriptions of metasynthesis research to date.

As we have described previously in this article, the nature of the research team contributes significantly to the quality of the metasynthesis. The selection of the research team, therefore, should be intentional to include differences in academic or clinical, disciplinary, and methodological perspectives as well as differences in research experience levels. Researchers developing metasynthesis research projects should ask themselves the following questions in recruiting researchers for the team:

- Are these researchers representative of the various categories of people that should be included?
- Are these researchers the right type of individuals to accomplish the work of the research project?
- Are these researchers able and willing to contribute the time and effort for the project?
- Are these researchers able to tolerate ambiguity and lack of structure in conducting research?

Although such attributes might be viewed by some researchers as "gifts" and "rewards" of the metasynthesis approach, others might view the lack of structure and the commitment to relationship building as antithetical to their preferred way of conducting research.

The literature to date has focused solely on the outcomes of metasynthesis research as indicators of its rigor. Our experience would suggest that the group processes that contribute to such decision making are equally important. It highlights the need for the development of relationships to be an intentional aspect of conducting metasynthesis research. Research teams that conduct metasynthesis research need to consider ways in which to build mutual trust and respect among the team members. In addition, it is important that they reflect on the group processes that result in decisions throughout the research.

Our experience has emphasized the need for evaluation of metasynthesis to extend beyond its products to consider the quality of the collaborative relationships among the research team. For example, metasynthesis researchers should ask periodically,

- In what ways do the members of the team convey respect for and appreciation of one another?
- Whom are we hearing from at meetings and whom we are not hearing from?
- What are we doing that is working well to build relationships between team members?
- What improvements do we need to make in the way we work together?

Conclusion

Metasynthesis is an exciting and rapidly evolving research method that promises to contribute significantly to being able to determine how a body of qualitative research can effectively inform policy, practice, and research. Despite the pioneer efforts of many authors to explicate the metasynthesis research method, this approach remains in its early development and there is much to be learned from the experiences and insights of researchers who have used the method. Our experience has highlighted a need for researchers who engage in this method to share openly with their colleagues their insights about metasynthesis research in order to further develop the approach. We trust that our insights and experiences will contribute to this goal.

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