Exploring Shared Musical Experiences in Dementia Care: A Worked Example of a Qualitative Systematic Review and Thematic Synthesis

Kate McMahon1, Imogen N. Clark1, Karette Stensæth2, Helen Odell-Miller4, Thomas Wosch3, Anna Bukowska5 and Felicity A. Baker1,2

Abstract
Qualitative systematic reviews, or qualitative evidence syntheses (QES), are increasingly used in health settings to guide the development of practice and policy. Thematic synthesis is one of the most well-developed approaches used for QES, however there are limited worked examples describing how to apply the steps of analysis in the literature. This paper describes the processes and decisions undertaken in a qualitative systematic review and thematic synthesis from the perspective of a novice researcher. The described review aimed to explore the shared musical experiences of people living with dementia and their family care partners across a range of settings. We found that shared musical activities fostered experiences of connection and wellbeing for people living with dementia and their family care partners. This was demonstrated with moderate-high confidence through six themes, and our findings informed the development of the Contextual Connection Model of Health Musicking. In presenting a worked example of our review, this paper introduces a systematic approach to coding and discusses the complexities of developing and reporting on analytical themes. We identify the need for a specific thematic synthesis reporting tool, and the need to embed reflexive practices into QES tools more broadly.

Keywords
thematic synthesis, qualitative evidence synthesis, systematic review, worked example

Introduction
Qualitative systematic reviews, also known as qualitative evidence syntheses (QES), combine the findings of primary qualitative studies in a systematic way (Flemming & Noyes, 2021). The terms qualitative systematic review and QES are often used interchangeably, however QES is preferred by the Cochrane Qualitative and Implementation Methods Group as it signifies the unique approaches required for synthesising qualitative evidence (Booth et al., 2016). QES is used to develop a greater understanding of issues addressed in qualitative research and generate insights that extend beyond the findings of individual studies (Carroll, 2017; Flemming & Noyes, 2021). QES is particularly helpful for understanding the experiences and needs of healthcare consumers as it combines perspectives from a range of contexts (Carroll, 2017). As a result, QES is increasingly used in healthcare to guide the development of practice and policy (Flemming & Noyes, 2021). In the study described in this paper, QES was selected to gain insights for developing research into shared musical experiences for people living with dementia and their family care partners.

1University of Melbourne, Australia
2Norwegian Academy of Music, Norway
3Institute for Applied Social Sciences, Würzburg, Germany
4Anglia Ruskin University, UK
5University of Physical Education, Krakow, Poland

Corresponding Author:
Kate McMahon, University of Melbourne, 204-234 St Kilda Rd, Southbank, VIC 3006, Australia.
Email: mcmahon.k@unimelb.edu.au
Thematic synthesis is one of the most well-established approaches to QES alongside framework synthesis and meta-ethnography (Flemming & Noyes, 2021). Thematic synthesis was developed by Thomas and Harden (2008) to address questions about people’s perspectives and experiences. It is recommended by the Cochrane Qualitative and Implementation Methods Group as an accessible and epistemologically flexible approach that is particularly suitable for novice researchers (Booth et al., 2016; Noyes et al., 2018). Correspondingly, thematic synthesis is one of the most commonly used approaches for QES (Flemming & Noyes, 2021).

Despite its popularity, there are few references for conducting thematic synthesis beyond Thomas and Harden’s (2008) foundational paper. In this publication, Thomas and Harden (2008) provide a worked example of a previously published study (Thomas et al., 2003), sharing detailed insights into their coding and development of descriptive themes. In a more recent book chapter, Thomas et al. (2017) use the same example study to outline the thematic synthesis process with added reflections.

Worked examples of QES are a suitable medium for educating novice qualitative researchers (Atkinson et al., 2000). Worked examples illuminate hidden steps and challenges of research methods (Hannes & Lockwood, 2012), serving to “demystify” the numerous challenges and decision-points faced (Sollemset & Linceviciute, 2018, p. 11). Several worked examples are evident in meta-ethnography (Benoot et al., 2016; Britten et al., 2002; Britten & Pope, 2012) and framework synthesis (Ames et al., 2019; Carroll et al., 2011; Yazdani & Yadollahi, 2019). However, we were only able to locate two worked examples of thematic synthesis in the healthcare-related literature (Lucas et al., 2007; Thomas & Harden, 2008). To address the gap, this paper describes the process and decisions undertaken by a novice researcher (Author 1) conducting a thematic synthesis. To emphasise the subjectivity of these decisions, this article is written from the first-person perspective, where ‘I’ and ‘my’ refers to Author 1 and ‘we’ refers to the supporting research team (all authors). This aligns with my interpretivist perspective (Wheeler, 2016) and seeks to highlight the unique challenges encountered by novice researchers.

The Example Study

The study described in this paper was a qualitative systematic review and thematic synthesis exploring the research question: How do people living with dementia and their family care partners experience shared musical activities? The rationale and findings of this study are published elsewhere (McMahon et al., 2022). The study described was conducted in the context of my doctoral studies as part of a multinational randomised control trial (Baker et al., 2019). Authors 2 and 7 provided supervision throughout the review process and contributed to reviewing and appraising articles for inclusion. Reflexivity (i.e., critical self-reflection) was applied throughout the coding and analysis process (Finlay, 2002b).

Selecting the Methodology

To determine the best review methodology, I examined a range of QES approaches (Booth et al., 2016) using the RETREAT framework (Review question, Epistemology, Time frame, Resources and Expertise) (Noyes et al., 2019). This process highlighted the suitability of a thematic synthesis approach for my review (see Table 1).

Thematic synthesis is a flexible approach to qualitative evidence synthesis (QES) designed to explore people’s perspectives and experiences (Thomas & Harden, 2008). It is particularly suitable for exploring participants’ views of interventions and identifying factors that influence an intervention’s success (Matney, 2018). Thematic synthesis involves three steps of analysis: 1) line-by-line coding of text; 2) developing descriptive themes while remaining close to the primary text; and 3) generating analytical themes by adding new interpretative constructs and hypotheses (Thomas & Harden, 2008). Analytical themes are generated by considering how the descriptive themes relate to the original research question (Thomas & Harden, 2008).

Developing a Search Strategy

My search strategy was informed by the aims of the review, discussions with supervisors, previous systematic reviews (Dowlen et al., 2018; Sellars et al., 2018) and the results from SPIDER, a search strategy tool that caters to the needs of QES (Cooke et al., 2012). The workings of my search strategy development are presented in Appendix B. The final search strategy included a Boolean search phrase, a list of databases and journals for searching, and inclusion and exclusion criteria (see Appendix B). This final search strategy and protocol was registered with PROSPERO (CRD42020169360) to reduce the risk of duplication and enable transparency.

Inclusion and Exclusion Criteria

The inclusion and exclusion criteria were informed by the aims of the review, discussions with supervisors, previous thematic syntheses (Dowlen et al., 2018; Sellars et al., 2018) and the SPIDER tool results (see Appendix B). Criteria was translated into a screening checklist and shared with Authors 2 and 7 for masked screening (see Appendix C).

Search and Screening

Through the screening process outlined in Figure 1, we identified 13 articles for inclusion in the review using Rayyan software (Ouzzani et al., 2016). To maintain independence through screening, I assessed 100% of articles, and Authors 2 and 7 shared the role of the second reviewer. This process is outlined in full in McMahon et al. (2022).
**Table 1. RETREAT Framework Considerations.**

| Thoughts/Notes | Indicated Methodology |
|----------------|------------------------|
| **Review question** | Examples from Matney (2018) highlighted approaches that align with my research question. E.g. "How do clients with Parkinson’s disease perceive their own health after receiving medical music therapy interventions?" (thematic synthesis) and "What are the experiences of caretakers in relation to music interventions in hospice settings?" (meta-synthesis) (p. 102) | Thematic synthesis Meta-synthesis |
| **Epistemology** | Framework synthesis, thematic narrative synthesis and thematic synthesis align with ‘critical realism’ which aligns most closely with my theoretical positioning (Barnett-Page & Thomas, 2009) | Framework synthesis Thematic synthesis Thematic synthesis |
| **Time frame** | This review is required to inform later stages of my research. Therefore, completing it within a short timeframe is desirable. High time requirement = Meta-syntheses; low time requirement = Framework synthesis, thematic synthesis (Booth et al., 2016) | Thematic synthesis Framework synthesis |
| **Resources** | Time resources are somewhat limited as the review is to be largely conducted by one researcher (me) with support from supervisors. I have access to a wide range of interlibrary loans and publications through the University of Melbourne | Low-moderate resource-intensive approaches |
| **Expertise** | Thematic synthesis is recommended as an accessible approach for novice researchers (Noyes et al., 2019). Meta-ethnography is contraindicated as it requires an expert team (Noyes et al., 2018) | Thematic synthesis |

**Interrater reliability**

The interrater reliability of decisions made throughout the screening process (McHugh, 2012) was calculated using Cohen’s kappa (Warrens, 2015) to safeguard transparency in the systematic review process (Belur et al., 2018). The initial screening (κ = 0.54) and full text screening (κ = 0.55) showed moderate agreement between reviewers (Landis & Koch, 1977). While this categorisation of kappa is increasingly acknowledged as arbitrary (Landis & Koch, 1977; Warrens, 2015), it is interesting to consider the level of agreement between raters and the possible contributing factors. Personal factors can impact the assessment process, including assessors’ academic background and experience, methodological preferences, and closeness to the research project (Belur et al., 2018). Several of these factors may have influenced agreement in this review. As a novice researcher, I took a cautious approach and was more hesitant to exclude studies than my experienced supervisors, Authors 2 and 7. These factors may explain our moderate kappa results. The nature of qualitative research may also contribute to differences in interpretation (O’Connor & Joffé, 2020). This was highlighted through our discussions which revealed different interpretations of the inclusion/exclusion criteria. While there are arguments both for and against using interrater reliability tools in qualitative research, in the context of this study it served to promote reflexivity and dialogue about these differences within the team (O’Connor & Joffé, 2020). This ultimately led to greater clarity around the types of articles we wished to include/exclude.

**Step One: Coding**

In step one, I coded the data inductively and line-by-line according to Thomas and Harden’s (2008) process. Line-by-line coding involves reading each sentence or paragraph carefully and assigning it with one or more codes (Thomas et al., 2017). Linneberg and Korsgaard (2019) argue that line-by-line coding helps to counter any unconscious selectivity that may have occurred in first readings/interaction with data. After sorting included articles alphabetically by author, I began coding the extracted text from the first article in my list (Clark et al., 2021). I took careful notice of specific words as well as sentences and paragraphs as a whole (Linneberg &

**Data Extraction**

Identifying what counts as data within qualitative reviews is a challenge, and decisions vary across studies (Soilemezi & Linceviciute, 2018; Thomas et al., 2017). While some studies choose to include only first order data (e.g. direct participant quotes) others include entire results/findings sections (Soilemezi & Linceviciute, 2018; Thomas et al., 2017). To determine the right approach for this review, I looked to existing thematic syntheses that explored the perspectives of people living with dementia (Dowlen et al., 2018; Hennelly et al., 2019). These studies used first and second order findings. Theoretical perspectives are also relevant to this decision. Some interpretivist researchers argue researcher-selected quotes involve a level of interpretation, so there is little value in distinguishing between first and second order data in a review (Noyes & Lewin, 2011). Based on my interpretivist perspective and the review of previous studies (Dowlen et al., 2018; Hennelly et al., 2019) I decided to extract all data included in the results or findings sections of included publications. This data was imported in PDF format into MAXQDA 2020 (VERBI Software, 2019) for coding and analysis. Details about each study were extracted and entered into a spreadsheet (see Appendix A).
To assist with the coding process I used the research software tool, MAXQDA 2020 (VERBI Software, 2019). Coding software such as MAXQDA 2020 is recommended by Thomas and Harden (2008) to assist with the coding process. Having previous experience with other software, NVivo (NVivo qualitative data analysis software, 2018), I was drawn to explore MAXQDA 2020 due to its visual appeal and options for colour-coding the data. Coding software has many benefits for the qualitative researcher, including the ability to label and search large quantities of data (Thomas & Harden, 2008). Coding software also allows the coder to organise codes either *freely* with no linked codes, or in *tree-like structures* (see Figure 2). These tree-like structures enabled me to create connections between codes with ease. Importantly, these codes were able to be easily moved, edited or adjusted as the coding process progressed.

Figure 1. PRISMA flow diagram (adapted from Page et al. (2021)).

Figure 2. Codes organised in tree-like structures.

After the first round of coding my first article, I continued to code each included study in alphabetical order. Coding subsequent studies involved *translation* (Thomas et al. (2017), where I made judgements about whether a line of text fitted
Table 2. Working Definitions of Codes (extract).

| Code                                | Definition/Description                                                                 |
|-------------------------------------|---------------------------------------------------------------------------------------|
| Mutual benefits                     | Has benefits for both the person living with dementia as well as the family care partner |
| Reminiscing                         | Actively remembering (i.e. remembering on purpose or extending/discussing memories by choice) |
| Evokes meaningful memories          | The music evokes memories in participants (can be spontaneous and unintentional)        |

Table 3. Coding Log Excerpts.

| Note Type                           | Excerpt from Log                                                                 |
|-------------------------------------|----------------------------------------------------------------------------------|
| Relationships between codes         | Social belonging versus creating supportive group – how are these different? Does belonging require support, and can supportive groups exist without belonging? Participate versus contribute. Is there a difference? Contribute implies creating something |
| Thoughts about code meanings        | Musical partnership (Elliott et al., 2020) – is this a way of thinking about togetherness that is different? Facilitation – provision of versus experience/receiving of |
| Meaning of codes in different contexts | Choice and preference: There is a difference between having choices/preferences honoured in group versus individual sessions. Within a group, familiarity and cultural/biographical relevance was more important than individual preferences, as shared enjoyment of a collective experience seemed to be a powerful factor (Hara, 2013). For dyads in a home setting, however, more individualised choice and preference seems to be more important. Choice and preference is not only about agency, but also about expression of identity Facilitation supports experience – applies to indiv. and group |

into existing codes or required a new code to be generated. For example, in the first round of coding data from Dowlen’s thesis (2019, p. 125), I allocated text to pre-existing codes: continuity, social belonging and choice and preference. However, in coding a discussion of “Scott’s comedic presence” (Dowlen, 2019, p. 126), I decided the concept of humour was significant enough to warrant its own new code. Each of these decisions was journaled about and discussed within supervision to maintain reflexivity through introspection and mutual collaboration (Finlay, 2002a).

As part of the initial coding, I was careful not to merge codes as I wanted to avoid prematurely ruling out distinctive themes. This is in keeping with reflexive practices where researchers attempt to keep an open mind while exploring data (Finlay & Evans, 2009). For example, in the initial round, several codes were developed on the topic of supportive friendships within groups: social belonging, connecting with group, supportive friendship with peers, friendship, affinity, feeling understood. While there are many similarities and overlapping meanings between these codes, I recognised subtle differences across these. For example, supportive friendship with peers was in essence different to the friendly interactions coded under friendship. This nuanced approach resulted in the generation of a large number of codes (208). To manage these numerous codes, I began to group them with like-named codes in tree-like structures for ease of navigation. For example, I grouped the codes musical connection, dyadic connection and connecting with identity/self under the code connection.

As coding continued, I logged working definitions for codes (see Table 2) which helped clarify my thinking and communicate my thoughts clearly with my supervisors.

Once the initial round of coding was completed for each study, I reviewed each study again considering all newly developed codes. This second cycle included re-reading the content and searching the text using keywords. Throughout this cycle, I maintained a log of emerging ideas and questions about the meanings and relationships between codes (see Table 3). These logs supported reflexivity through introspection and, subsequently, mutual collaboration and discursive deconstruction as I dialogued with Author 2 around the nuanced meanings of words and concepts in different contexts (Finlay, 2002a).

Step Two: Developing Descriptive Themes

In step two, I began grouping codes into descriptive themes. This involved identifying relationships between codes and organising these into conceptual themes (Thomas et al., 2017). In the first part of this process, I used the sets feature in MAXQDA 2020 to organise codes into conceptual groups I had noticed during the coding process (see Figure 3). The sets feature allowed me to explore ideas separately to the tree-like structures created during coding, and acted as a starting point for my brainstorming.

Following these initial groupings, I engaged in mind-mapping and brainstorming with Author 2 to identify and explore key themes and concepts (see Figure 4). This process was informed by groups within the sets, the prominence of
individual and grouped codes, and notes from my coding log. The prominence of a code was indicated by the number of times it was allocated across the data.

Based on the insights gained through brainstorming, I began organising and refining codes to create descriptive themes. I moved codes into more defined categories and checked the coded content against these categories. This systematic process involved bottom-up, top-down and side-to-side processes. During the bottom-up process, I examined less prominent codes in terms of their independence and relationship to other codes. If their meaning was sufficiently similar to another code, these two codes were merged (with the original description included in the merged code (e.g. relaxing/restful)). If they were sufficiently independent in
meaning, they were allocated to sit under a relevant parent code. For example, the code something to talk about (8 allocations) was assessed as sufficiently independent to other codes and allocated to sit under the parent code supports dyadic relationship.

Within the top-down process, prominent codes were considered in relationship to other codes, with relevant codes moved to sit under these. For example, all codes were considered for their possible relevance to the prominent theme supports dyadic relationship (55 allocations). Codes identified as relevant to supports dyadic relationship were moved to sit under this code.

MAXQDA 2020’s visual tools were also used to explore top-down relationships as shown in Figure 5. This tool allowed the free-form allocation of codes, assisting me to creatively explore the relationships between them.

During the side-to-side processes, codes were considered in relation to multiple categories. Where applicable, codes that were relevant to multiple categories were duplicated. For example, shared moments was duplicated to sit under both shared dyadic experiences and over time>the moment, and coded content was re-evaluated under each parent theme.

While many code groups were developed inductively, some groupings were formed deductively as influenced by theoretical frameworks including personhood (Kaufmann & Engel, 2016; Kitwood, 1997) and positive psychology (Clarke et al., 2016). For example, as the codes inclusion, connecting with identity/self, mental/cognitive stimulation, comfortable/safe and control/agency were grouped together under Person with dementia’s experiences of music, I was consciously influenced by theories of personhood and subjective wellbeing posited by Kitwood (1997) and Kaufmann and Engel (2016). This led to the construction of the Parent theme wellbeing (personhood) is supported with underlying categories relating to key aspects of subjective wellbeing: attachment, agency, comfort, inclusion, occupation and identity (Kaufmann & Engel, 2016; Kitwood, 1997). Throughout this process, I continued to consult with my supervisors and engage in reflexive dialogue. The final descriptive themes are shown in Table 4. The number of times a theme is coded is shown in brackets to indicate the theme’s prominence.

**Step Three: Developing Analytical Themes**

Step three is notoriously difficult to describe as it often overlaps with step two (Thomas et al., 2017). As discussed by Thomas et al. (2017), descriptive themes sometimes adequately respond to the research question, while other reviews require an analytical stage. In this study, while some descriptive themes addressed the research question (e.g. Music is experienced as a supportive structure), others required a further analytical stage (e.g. in group context). To move from descriptive to analytical (or final) themes (see Table 5), I worked inductively and deductively considering the research question, the prominence of descriptive themes, relevant theoretical frameworks, and my notes from steps one and two.

For example, within the descriptive theme detailing people with dementia’s experiences of sharing music, the code wellbeing is supported was highly prominent, with 1406 allocations and detailed underlying codes. This led to the development of the analytical theme, Shared musical activities support wellbeing for people living with dementia. While I was aware of the relevance of Kitwood’s theory of personhood (1997) to this theme’s underlying codes, a closer examination...
Table 4. Descriptive Themes.

| Descriptive Theme                  | Sub-theme                                           | Underlying Codes                                                                 |
|-----------------------------------|-----------------------------------------------------|-----------------------------------------------------------------------------------|
| Individual and together           | Person with dementia’s experiences of music (1448) | Wellbeing is supported (1406)                                                     |
| (2032)                            |                                                     | Facilitation enhances experiences (90)                                             |
|                                   |                                                     | Challenges with music (35)                                                        |
|                                   | Family care partner’s experiences of music (214)    | Supportive (91)                                                                  |
|                                   |                                                     | ‘They’re still there’ (57): Witnessing (41) and ‘Being together like before’ (15) |
|                                   |                                                     | Cognitive shifts (33)                                                            |
|                                   |                                                     | ‘If she feels alright, I feel alright’ (symbiotic) (17)                         |
|                                   |                                                     | Challenges (13)                                                                  |
|                                   | Shared dyadic experiences (370)                     | Mutually beneficial (38)                                                          |
|                                   |                                                     | Supports dyadic relationship (331):                                              |
|                                   |                                                     | Togetherness (135)                                                              |
|                                   |                                                     | Dyadic connection (154)                                                          |
|                                   |                                                     | Increased/enhanced communication (14)                                             |
| In group context (1197)           | Ecological (478)                                    | Group culture/identity (269)                                                      |
|                                   |                                                     | Performative (63)                                                               |
|                                   |                                                     | Sense of self in context (35)                                                    |
|                                   |                                                     | Something to look forward to/anticipation (28)                                  |
|                                   |                                                     | Individual role in group (23)                                                    |
|                                   |                                                     | A musicking space (23)                                                          |
|                                   |                                                     | Sustainability (11)                                                             |
|                                   | Facilitation supports/enhances experience (416)     | Facilitation style/approach (274)                                                |
|                                   |                                                     | Logistics (129)                                                                |
|                                   | Belonging and connection (286)                      | Supportive friendships (56)                                                      |
|                                   |                                                     | Opportunity for socialising (22)                                                 |
|                                   |                                                     | Social belonging (121)                                                          |
|                                   |                                                     | Connecting with group (18)                                                       |
|                                   |                                                     | Collective experience (33)                                                       |
|                                   |                                                     | Levelling (36)                                                                  |
| Over time (1033)                  | Changed over time (80)                             | Enjoyment (121)                                                                 |
|                                   | Warming up/tuning in (19)                           | Embodied response to music (97)                                                   |
|                                   | Now ‘the moment’ (448)                             | Humour (37)                                                                     |
|                                   |                                                     | Emotional experience (32)                                                        |
|                                   |                                                     | Enthusiasm (29)                                                                |
|                                   |                                                     | Shared moments (27)                                                            |
|                                   |                                                     | Playfulness (24)                                                               |
|                                   |                                                     | A ‘special time’ (14)                                                            |
|                                   |                                                     | Flow (12)                                                                      |
|                                   |                                                     | Appreciation of musical aesthetics (11)                                          |
| Extending beyond (211)            | At home (143): Enhanced personal wellbeing (54)    | Replacing for previous activities (24), Increased use of music (18), Something to talk about (9) |
|                                   |                                                     | Community (78): Challenging perceptions/expectations (28), Ongoing connection/community (27), Openness/engagement with other activities (13), Connecting to broader community (10) |
|                                   |                                                     | Creating new meaning (47)                                                       |

(continued)
revealed codes aligned with my broader reading around Positive Psychology (Clarke et al., 2020). Positive Psychology theories of wellbeing in dementia expand on Kitwood’s work to include concepts of flourishing and personal growth (Clarke et al., 2016, 2020). These concepts align with the codes creativity, meaning-making and social belonging/citizenship. Based on this congruence, I used Clarke et al. (2020) conceptual framework to structure Theme one’s sub-themes, allocating the codes deductively. The decision to work deductively in this case was discussed and revisited in several cycles with Authors 2 and 7. The other codes and sub-themes within this first descriptive theme were absorbed into other analytical themes (shared musical experiences are experienced by me and as we).

In reviewing the descriptive theme In group settings, I was influenced by previous knowledge of Community Music Therapy (Stige & Aarø, 2012) and ecological theories (Bronfenbrenner, 1992; Bruscia, 2014). For example, as I explored the codes under this theme and engaged in reflexive dialogue with Author 2, the organic development of relationships, culture and rituals in group settings became apparent, leading to the development of the analytical theme, *Music groups become ecological systems.*

Themes 3 and 5 were largely carried over from the descriptive themes, as these already described aspects of how dyads experienced shared musical activities. Through reflexive discussions and the writing up process, these two themes became more developed. Theme four was derived from the individual and shared experiences highlighted in the descriptive themes. Across all the analytical themes, the writing-up process helped to develop and refine each theme. This is common within qualitative research, as writing is used to process and develop ideas (Mitchell & Clark, 2021). Through this write-up stage, I noticed that the underlying theme of connection appeared repeatedly across themes. As I reviewed the codes, I identified a variety of types of connection throughout. This led

| Table 4. (continued) |
|----------------------|
| Descriptive Theme | Sub-theme | Underlying Codes |
| **Music as a supportive structure (536)** | Connecting (258) | Connecting with memories (90) |
| | | Musical connection (55) |
| | | Musical communication (48) |
| | | Non-verbal communication (36) |
| | | Connection with present/orientation (20) |
| | Containing (safety, comfort, boundaries) (116) | A frame (57) |
| | | Familiar and predictable (43) |
| | | Internalised haven (11) |
| | Accessible (58) | Music helps with memory and learning (34) |
| | Levelling (38) | |
| | Lifting (34) | |
| | Transporting (13) | |

| Table 5. Evolution of Descriptive Themes to Analytical Themes. |
|----------------------|----------------------|----------------------|
| Descriptive Theme/sub-theme | Analytical Theme | Overarching Theme |
| **Wellbeing is supported (highly prominent code within the theme Individual and together)** | Theme 1. Shared musical activities support wellbeing for people living with dementia | Theme 6. The thread of connection |
| In group context | Theme 2. Music groups become ecological systems |
| Ecological | |
| Facilitation supports/enhances experience | |
| Belonging and connection | |
| **Over time** | |
| Changed over time | Theme 3. Experiences of shared musical activities change over time |
| Warming up/tuning in | |
| Now “the moment” | |
| Extending beyond | |
| **Individual and together** | |
| Person with dementia’s experiences of music | Theme 4. Shared musical activities are experienced by me and as we |
| Family care partner’s experiences of music | |
| Shared dyadic experiences | |
| **Music as a supportive structure: Connecting, containing, accessible, levelling, lifting, transporting** | Theme 5. Music is a supportive structure |
to the development of Theme six: The thread of connection. The development of this new theme was discussed with Author 2 and Author 7 to maintain reflexivity.

**Reflexive Practices.** Throughout the analysis I engaged in regular supervision with Author 2 and Author 7 to discuss my processes and examine emerging codes and themes. This supervision supported the reflexive practice of mutual collaboration, where cycles of dialogue helped to move our understandings beyond initial assumptions, understandings and biases (Finlay, 2002a). As part of these discussions, we reviewed random segments of text and reflected on the accuracy and possible meanings of the codes and themes. We attempted to bring a self-awareness of our own contexts to these discussions (Finlay, 2002b), acknowledging our influences from previous research and theoretical frameworks such as personhood (Kitwood, 1997) and Community Music Therapy (Stige & Aarø, 2011). For example, in my initial coding I created the code performative. At the time of coding, I viewed this as simply the most accurate description for the coded text. On further reflection, I realised I was influenced by my previous knowledge of Community Music Therapy (Stige & Aarø, 2011). With a new awareness of these influences, I reevaluated my use of this code. After reviewing the data and discussing with Author 2, I decided to retain the original code and embrace these influences while explicitly acknowledging them. I also engaged in regular journaling and note-taking throughout the coding and analysis process. The act of recording and reflecting on my decisions helped me engage in introspection throughout, and these records were a reference and prompt for reflexive dialogue during supervision (Finlay, 2002a).

**Quality and Accountability**

To assess the quality of these findings, I completed a CASP assessment (Critical Appraisal Skills Programme, 2018) for each included article, and a GRADE-CERQual assessment for each analytical theme and sub-theme (Lewin et al., 2018). A summary of these is provided in Appendix D, and the full results are published alongside the study’s results (McMahon et al., 2022). The GRADE-CERQual assessments found moderate-high confidence in this study’s findings based on methodology, coherence, adequacy and relevance (Lewin et al., 2018; McMahon et al., 2022). In reporting the findings of this systematic review, I used the PRISMA 2020 checklist (published in McMahon et al. (2022)) and the ENTREQ reporting guidelines (Tong et al., 2012).

**Discussion**

In this worked example, we aimed to explore how people living with dementia and their family care partners experienced shared musical activities across a range of settings. While the comprehensive search increased our chance of capturing all relevant articles, the subjective nature of inclusion/exclusion criteria became clear as we embarked on the reviewing process, thereby highlighting the importance of transparency. I used the updated PRISMA checklist (Page et al., 2021) and the ENTREQ reporting guidelines (Tong et al., 2012) to promote transparency. While there is considerable overlap between these tools, they both have unique benefits. PRISMA’s online tools provide a convenient and comprehensive approach for reporting on any type of systematic review (McGregor, 2021; Page et al., 2021). ENTREQ includes items specific to qualitative reviews, prompting the reporting of coding processes, theme development, and clear presentation of quotations. Therefore, we recommend the use of both PRISMA (Page et al., 2021) and ENTREQ (Tong et al., 2012) for transparency in future QES.

Despite using these tools, I found it challenging to report steps two and three transparently due to the lack of distinction between stages. This is common within thematic syntheses (Thomas et al., 2017). To counter this, we recommend reviewers keep detailed notes in every step. While I attempted to do this through journaling and recording decisions, a checklist or reporting tool may have supported this further. Since the development of ENTREQ, specific reporting guidelines have been developed for meta-ethnography, realist reviews and meta-narrative reviews (Flemming & Noyes, 2021). There are, however, no specific reporting tools for thematic synthesis despite its popularity (Flemming & Noyes, 2021). In light of the above challenges, there is a demonstrated need for a specific reporting tool for thematic synthesis.

In keeping with the Cochrane group’s recommendations, I found thematic synthesis to be an accessible approach to QES as a novice researcher (Noyes et al., 2018). The lack of distinction between stages two and three, however, may be challenging for novice researchers. Therefore, guidance across these stages from experienced researchers is highly recommended. Worked examples of thematic syntheses from experienced researchers would further benefit this field.

According to its proponents, QES makes economical use of existing data to gain insights into complex interventions (Booth et al., 2016; Flemming et al., 2019). This thematic synthesis confirms this view, making use of existing data with vulnerable populations to gain insights into complex processes within shared musical activities.

The discussed review was potentially limited by the exclusion of mixed methods studies, and the lack of diverse populations in the primary studies. Future studies may benefit from using broader inclusion criteria. Additionally, the review may have benefited from deeper reflexive practices to promote integrity and transparency (Finlay, 2002b). While I attempted to incorporate reflexive practices throughout, these were largely limited to introspection and mutual collaboration (Finlay, 2002a). While reflexivity is acknowledged as an important aspect of QES (Downe et al., 2019; Flemming & Noyes, 2021), it is not widely embedded in reporting processes. This could be improved by including reflexive practices in future QES tools.
A strength of this study was the detailed reporting of step one: coding. In this worked example, I provide a systematic approach to coding including top-down, bottom-up and side-to-side processes. This example adds to the existing literature around coding (Chenai, 2012; Linneberg & Korsgaard, 2019; Thomas et al., 2017), providing a unique perspective from a novice researcher. The use of ‘I’ in my first-person discussion also supported critical reflection on my theoretical influences and decision-making. Within a qualitative paradigm, this reflexivity increases the transparency and trustworthiness of research (Finlay, 2002b).

**Conclusion**

In conclusion, this worked example may provide guidance for novice researchers conducting a qualitative thematic synthesis. This paper provides an example of the key decisions and processes undertaken, and explored the challenges and benefits of conducting QES and thematic syntheses. We highlight the need for meticulous note-taking and reflexivity during analysis to facilitate transparent reporting, and the need to develop a specific thematic synthesis reporting tool that incorporates reflexive processes. We also identify the need to embed reflexive practices into general QES tools. More broadly, this worked example demonstrates how primary qualitative research may be utilised to gain insights into complex processes like music therapy (Carroll, 2017; Flemming & Noyes, 2021). These rich understandings are a valuable guide for healthcare providers and policy developers in community music, music therapy and dementia care spaces (Barbour, 2008; Booth et al., 2016; Flemming & Noyes, 2021).

**Author Contributions**

**Kate McMahon**: Conceptualisation, Methodology, Investigation, Data Curation, Formal Analysis, Writing – Original Draft, Review and Editing, Project Administration; **Imogen Clark and Felicity Baker**: Conceptualisation, Methodology, Investigation, Formal Analysis, Writing – Review and Editing, Supervision; **Karette Stensæth**: Conceptualisation, Writing – Review and Editing; **Helen Odell-Miller**: Conceptualisation, Writing - Review and Editing; **Anna Bukowska and Thomas Wosch**: Conceptualisation.

**Declaration of Conflicting Interests**

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

**Funding**

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This work was supported by the University of Melbourne, National Health and Medical Research Council (NHMRC, NH&MRC GNT1169867) and the EU Joint Programme – Neurodegenerative Disease Research (JPND; HESOCARE-329-005). The HOMESIDE team and HOMESIDE International PhD (HIP) group provided feedback and dialogue that supported this study’s development.

**ORCID iD**

Kate McMahon https://orcid.org/0000-0002-0507-5736

**References**

Ames, H., Glenton, C., & Lewin, S. (2019). Purposive sampling in a qualitative evidence synthesis: A worked example from a synthesis on parental perceptions of vaccination communication. *BMC Medical Research Methodology*, 19(1), 26. https://doi.org/10.1186/s12874-019-0665-4

Atkinson, R. K., Derry, S. J., Renkl, A., & Wortham, D. (2000). Learning from examples: Instructional principles from the worked examples research. *Review of Educational Research*, 70(2), 181–214. https://doi.org/10.3102/00346543070020181

Baker, F. A., Bloska, J., Braat, S., Bukowska, A., Clark, I., Hsu, M. H., Kvanmme, T., Lautenschlager, N., Lee, Y. E. C., Smrokowska-Reichmann, A., Sousa, T. V., Stensaeth, K. A., Tamplin, J., Wosch, T., & Odell-Miller, H. (2019). HOMESIDE: Home-based family caregiver-delivered music and reading interventions for people living with dementia: Protocol of a randomised controlled trial. *BMJ Open*, 9(11), e031332. https://doi.org/10.1136/bmjopen-2019-031332

Barbour, R. (2008). The scope and contribution of qualitative research. In *Introducing qualitative research* (pp. 9–34). SAGE Publications, Ltd. https://doi.org/10.4135/9780857029034

Barnett-Page, E., & Thomas, J. (2009). Methods for the synthesis of qualitative research: A critical review. *BMC Medical Research Methodology*, 9(1), 59. https://doi.org/10.1186/1471-2288-9-59

Belur, J., Tompson, L., Thornton, A., & Simon, M. (2018). Interrater reliability in systematic review methodology: Exploring variation in coder decision-making. *Sociological Methods & Research*, 50(2), 837–865. https://doi.org/10.1177/0049124118799372

Benoot, C., Hannes, K., & Bilsen, J. (2016). The use of purposeful sampling in a qualitative evidence synthesis: A worked example on sexual adjustment to a cancer trajectory. *BMC Medical Research Methodology*, 16(1), 21. https://doi.org/10.1186/s12874-016-0114-6

Booth, A., Noyes, J., Flemming, K., Gerhardus, A., Wahlster, P., van der Wilt, G. J., Mozygemba, K., Refolo, P., Sacchini, D., Tummers, M., & Rehfues, E. (2016). Guidance on choosing qualitative evidence synthesis methods for use in health technology assessments of complex interventions. Integrate-HTA.

Bramer, W. M., Rethlefsen, M. L., Kleijn, J., & Franco, O. H. (2017). Optimal database combinations for literature searches in systematic reviews: A prospective exploratory study. *Systematic Reviews*, 6(1), 245–245. https://doi.org/10.1186/s13643-017-0644-y

Britten, N., Campbell, R., Pope, C., Donovan, J., Morgan, M., & Pill, R. (2002). Using meta ethnography to synthesise qualitative research: A worked example. *Journal of Health Services Research and Policy*. 17(1), 26–31. https://doi.org/10.1177/13558029020170010401

Carroll, J. (2017). *Music therapy and dementia care: A reflexive approach*. Jessica Kingsley Publishers.
Critical Appraisal Skills Programme. (2018). CASP qualitative studies checklist. https://casp-uk.net/casp-tools-checklists/

Dowlen, R. E. L. (2019). The 'in the moment' musical experiences of people with dementia: A multiple-case study approach. [PhD, The University of Manchester (United Kingdom)]. ProQuest Dissertations & Theses Global.

Downe, S., Finlayson, K. W., Lawrie, T. A., Lewin, S. A., Glenton, C., Rosenbaum, S., Barreix, M., & Tunçalp, Ö. (2019). Qualitative Evidence Synthesis (QES) for Guidelines: Paper 1 – using qualitative evidence synthesis to inform guideline scope and develop qualitative findings statements. Health Research Policy and Systems, 17(1), 76. https://doi.org/10.1186/s12961-019-0467-5

Elliott, M., Gardner, P., Narushima, M., & Mc Cleary, L. (2020). Music lessons: Exploring the role and meaning of music for older adults with dementia. Canadian Journal on Aging, 1–14. https://doi.org/10.1017/S071498081900076X

Finlay, L. (2002a). Negotiating the swamp: The opportunity and challenge of reflexivity in research practice. Qualitative Research, 2(2), 209–230. https://doi.org/10.1177/146879410200200205

Finlay, L. (2002b). Outing the researcher: The provenance, process, and practice of reflexivity. Qualitative Health Research, 12(4), 531–545. https://doi.org/10.1177/104973201291200052

Finlay, L., & Evans, K. (2009). Relational-centred research for psychotherapists: Exploring meanings and experiences. Wiley.

Fleming, K., Booth, A., Garside, R., Tunçalp, Ö., & Noyes, J. (2019). Qualitative evidence synthesis for complex interventions and guideline development: Clarification of the purpose, designs and relevant methods. BMJ Global Health, 4(Suppl 1), e000882. https://doi.org/10.1136/bmjgh-2018-000882

Fleming, K., & Noyes, J. (2021). Qualitative evidence synthesis: Where are we at? International Journal of Qualitative Methods, 20, 160940692199327. https://doi.org/10.1177/1609406921993276

Garabedian, C. E., & Kelly, F. (2020). Haven: Sharing receptive music listening to foster connections and wellbeing for people with dementia who are nearing the end of life, and those who care for them. Dementia, 19(5), 1657–1671. https://doi.org/10.1177/1471301218804728

Gardner, C. I. (1999). Music therapy: Enhancing communication between family caregivers and. UMI]. Ann Arbor: their loved ones with dementia (Alzheimer’s disease) University Microfilms International.

Hannes, K., & Lockwood, C. (2012). Preface. In K. Hannes, & C. Lockwood (Eds.), Synthesizing qualitative research: Choosing the right approach. Wiley.

Hao, Z., & Ruggiano, N. (2020). Family-centeredness in dementia care: What is the evidence? Social Work in Health Care, 59(1), 1–19. https://doi.org/10.1080/00981389.2019.1690089

Hara, M. (2011). Expanding a care network for people with dementia who are nearing the end of life, and those who care for them. Dementia, 19(5), 1657–1671. https://doi.org/10.1177/1471301218804728
Hennelly, N., Cooney, A., Houghton, C., & O’Shea, E. (2019). Personhood and dementia care: A qualitative evidence synthesis of the perspectives of people with dementia. The Gerontologist, 61(3), e85–e100. https://doi.org/10.1093/geront/gnz159

Kaufmann, E. G., & Engel, S. A. (2016). Dementia and well-being: A conceptual framework based on Tom Kitwood’s model of needs. Dementia, 15(4), 774–788. https://doi.org/10.1177/1471301214539690

Kitwood, T. (1997). Dementia reconsidered: The person comes first. Open University Press.

Lee, S., O’Neill, D., & Moss, H. (2020). Promoting well-being among people with early-stage dementia and their family carers through community-based group singing: a phenomenological study. Arts Health, 1–17. https://doi.org/10.1080/17533015.2020.1839776

Lewin, S., Booth, A., Glenton, C., Munthe-Kaas, H., Rashidian, A., Wainwright, M., Bohren, M. A., Tunçalp, Ö., Colvin, C. J., Garside, R., Carlsen, B., Langlois, E. V., & Noyes, J. (2018). Applying GRADE-CERQual to qualitative evidence synthesis findings: Introduction to the series. Implementation Science, 13(1), 2. https://doi.org/10.1186/s13112-017-0688-3

Linnenberg, M., & Korsgaard, S. (2019). Coding qualitative data: A synthesis guiding the novice. Qualitative Research Journal, 19(3), 259–270. https://doi.org/10.1108/QRJ-12-2018-0012

Lucas, P. J., Baird, J., Arai, L., Law, C., & Roberts, H. M. (2007). Worked examples of alternative methods for the synthesis of qualitative and quantitative research in systematic reviews. BMC Medical Research Methodology, 7(4), 1–7. https://doi.org/10.1186/1471-2288-7-4

Macgregor, R. A. (2016). Music therapy: A bridge to communication for family caregivers of persons with dementia [M.A., University of the Pacific]. ProQuest Dissertations & Theses Global.

Matney, B. (2018. March). Understanding literature reviews: Implications for music therapy. Nordic Journal of Music Therapy, 27(2), 97–125. https://doi.org/10.1080/08998131.2017.1366543

McGregor, L. (2021). PRISMA 2020 Checklist [Online app]. https://prisma.shinyapps.io/checklist/

McHugh, M. L. (2012). Interrater reliability: The kappa statistic. Biochemia Medica, 22(3), 276–282. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3900052/

McMahon, K., Clark, I. N., Stensæth, K., Wosch, T., Odell-Miller, H., Bukowska, A., & Baker, F. A. (2022). A qualitative systematic review of the experiences of sharing music for people living with dementia and their family caregivers: The thread of connection. Arts & Health. In Press.

Methley, A. M., Campbell, S., Chew-Graham, C., McNally, R., & Cheraghi-Sohi, S. (2014). PICO, PICOS and SPIDER: A comparison study of specificity and sensitivity in three search tools for qualitative systematic reviews. BMC Health Services Research, 14(1), 579. https://doi.org/10.1186/s12913-014-0579-0

Mitchell, K. M., & Clark, A. M. (2021). Enhance your qualitative analysis with writing: Four principles of writing as inquiry. International Journal of Qualitative Methods, 20. https://doi.org/10.1177/16094069211057997

Noyes, J., Booth, A., Cargo, M., Flemming, K., Harden, A., Harris, J., Garside, R., Hannes, K., Pantoja, T., & Thomas, J. (2019). Qualitative evidence. In J. P. Higgins, J. Thomas, J. Chandler, M. Cumpston, T. Li, M. J. Page, & V. A. Welch (Eds.), Cochrane handbook for systematic reviews of interventions. Wiley-Blackwell. https://doi.org/10.1002/9781119536604.ch21

Noyes, J., Booth, A., Flemming, K., Garside, R., Harden, A., Lewin, S., Pantoja, T., Hannes, K., Cargo, M., & Thomas, J. (2018). Cochrane Qualitative and Implementation Methods Group guidance series—paper 3: Methods for assessing methodological limitations, data extraction and synthesis, and confidence in synthesized qualitative findings. Journal of Clinical Epidemiology, 97, 49–58. https://doi.org/10.1016/j.jclinepi.2017.06.020

Noyes, J., & Lewin, S. (2011). Extracting qualitative evidence. In J. Noyes, A. Booth, K. Hannes, A. Harden, J. Harris, S. Lewin, & C. Lockwood (Eds.), Supplementary guidance for inclusion of qualitative research in Cochrane systematic reviews of interventions. Cochrane Collaboration Qualitative Methods Group. http://cqrmg.cochrane.org/supplemental-handbook-guidance

NVivo qualitative data analysis software. (2018). QSR International Pty Ltd.

O’Connor, C., & Joffe, H. (2020). Intercoder reliability in qualitative research: Debates and practical guidelines. International Journal of Qualitative Methods, 19. https://doi.org/10.1177/1609406919899220

Osman, S. E., Tischler, V., & Schneider, J. (2016). ‘Singing for the Brain’: A qualitative study exploring the health and well-being benefits of singing for people with dementia and their carers. Dementia, 15(6), 1326–1339. https://doi.org/10.1177/1471301214556291

Ouzzani, M., Hammad, H., Fedorowicz, Z., & Elmagarmid, A. (2016). Rayyan—a web and mobile app for systematic reviews. Systematic Reviews, 5(1), 210. https://doi.org/10.1186/s13643-016-0384-4

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hrubschtarson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., & Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. International Journal of Surgery, 88. https://doi.org/10.1016/j.ijsu.2021.105906
Sellars, M., Chung, O., Nolte, L., Tong, A., Pond, D., Fetherstonhaugh, D., McInerney, F., Sinclair, C., & Detering, K. M. (2018). Perspectives of people with dementia and carers on advance care planning and end-of-life care: A systematic review and thematic synthesis of qualitative studies. *Palliative Medicine, 33*(3), 274–290. https://doi.org/10.1177/0269216318809571

Shibazaki, K., & Marshall, N. A. (2017). Exploring the impact of music concerts in promoting well-being in dementia care. *Aging & Mental Health, 21*(5), 468–476. https://doi.org/10.1080/13607863.2015.1114589

Soilemezi, D., & Linceviciute, S. (2018). Synthesizing qualitative research: Reflections and lessons learnt by two new reviewers. *International Journal of Qualitative Methods, 17*(1), 160940691876801. https://doi.org/10.1177/1609406918768014

Stige, B., & Aarø, L. E. (2011). *Invitation to community music therapy*. Routledge.

Thomas, J., & Harden, A. (2008). Methods for the thematic synthesis of qualitative research in systematic reviews. *BMC Medical Research Methodology, 8*(1), 45. https://doi.org/10.1186/1471-2288-8-45

Thomas, J., O’Mara-Eves, A., Harden, A., & Newman, M. (2017). Synthesis methods for combining and configuring textual or mixed methods data. In D. Gough, S. Oliver, & J. Thomas (Eds), (pp. 181–209). SAGE. *An introduction to systematic reviews.*

Thomas, J., Sutcliffe, K., Harden, A., Oakley, A., Oliver, S., Rees, R., Brunton, G., & Kavanagh, J. (2003). Children and healthy eating: A systematic review of barriers and facilitators. *EPPI-Centre, Social Science Research Unit, Institute of Education, University of London.*

Tong, A., Flemming, K., McInnes, E., & Oliver, S. (2012). Enhancing transparency in reporting the synthesis of qualitative research: ENTREQ. *BMC Medical Research Methodology, 12*(1), 181. https://doi.org/10.1186/1471-2288-12-181

Unadkat, S. (2015). Group singing for couples where one partner has a diagnosis of dementia [D.Clin.Psy., Canterbury Christ Church University (United Kingdom)]. *ProQuest Dissertations & Theses Global.*

VERBI Software (2019). *MAXQDA 2020*, (Computer software).

Warrens, M. J. (2015). Five ways to look at Cohen’s Kappa. *Journal of Psychology & Psychotherapy, 5*(4), 1. https://doi.org/10.4172/2161-0487.1000197

Wheeler, B. L. (2016). Principles of interpretivist research. In K. Murphy, & B. Wheeler (Eds), *Music therapy research* (3rd ed., pp. 294–315). Barcelona Publishers.

Yazdani, S., & Yadollahi, A. (2019). Mental trait and personal characteristic taxonomy: A worked example of “best fit” framework synthesis. *Journal of Medical Education, 18*(3), 132–143.

Zeilig, H., Tischler, V., van der Byl Williams, M., West, J., & Strohmaier, S. (2019). Co-Creativity, well-being and agency: A case study analysis of a co-creative arts group for people with dementia. *Journal of Aging Studies, 49*, 16–24. https://doi.org/10.1016/j.jaging.2019.03.002
## Appendix A: Study Information

### Table A1. Details of Final Included Articles.

| Author        | Year | Title                                                                 | Research Methodology               | Data Collection                  | Country     | Intervention Type                  | Intervention Setting | Participant Details                                                                 | Professional/ Theoretical Framework |
|---------------|------|----------------------------------------------------------------------|-----------------------------------|---------------------------------|-------------|------------------------------------|---------------------|-----------------------------------------------------------------------------------|--------------------------------------|
| Clark et al.  | 2018 | Community-dwelling people living with dementia and their family care partners experience enhanced relationships and feelings of well-being following therapeutic group singing: A qualitative thematic analysis | Thematic analysis                 | Semi-structured interviews with dyads | Australia   | Therapeutic group singing          | Public health facility | 8 × spousal/partner dyads; 1 × parent/daughter dyad                                 | Music therapy; Person-centred          |
| Clark et al.  | 2021 | “Doing things together is what it’s about”: An interpretative phenomenological analysis of the experience of group therapeutic songwriting from the perspectives of people with dementia and their family care partners | Interpretative Phenomenological Analysis (IPA) | Semi-structured interviews with dyads | Australia   | Therapeutic group songwriting      | Community-based       | 10 dyads total – 5 × spousal dyads living together, 3 × spousal dyads living separately, 2 × family dyads (parent-adult child) living separately | Music therapy; person-centred; family-centred; community music therapy |
| Dowlen        | 2019 | The ‘in the moment’ musical experiences of people with dementia: A multiple-case study approach | Multiple case study design         | Video-observation, video-elicitation interviews, participant diaries, and observational notes by participant/ observer | UK          | Group music therapy                | Community-based group setting | 4 × spousal dyads; Four of the six people living with dementia attended the group with a family carer; (Scott, Philip, Carol and Henry) (Dowlen, 2019, P. 96: 880) | Music therapy; community music therapy |
| Elliott et al.| 2020 | Music lessons: Exploring the role and meaning of music for older adults with dementia | Multiple case study design – developed own qualitative analysis to analyse text and video | Semi-structured interviews, observation, and self-recorded videos from dyads | Canada      | Home-based music                   | Home-based            | 3 × spousal dyads                                                                  | Community health                      |

(continued)
| Author          | Year | Title                                                                 | Research Methodology               | Data Collection                                                                 | Country | Intervention Type          | Intervention Setting | Participant Details                                                                 | Professional/ Theoretical Framework                                                                 |
|-----------------|------|-----------------------------------------------------------------------|-----------------------------------|---------------------------------------------------------------------------------|---------|----------------------------|----------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| Garabedian and Kelly | 2020 | Haven: Sharing receptive music listening to foster connections and wellbeing for people with dementia who are nearing the end of life, and those who care for them | Thematic analysis                  | Semi-structured interviews with carers, key staff and managers; video recordings of intervention | UK      | Live and recorded music listening | Residential aged care | 12 × dyads: A person living with dementia and “someone closely connected to them” (p. 1) | Social sciences; personhood                                                                           |
| Gardner         | 1999 | Music therapy: Enhancing communication between family care partners and their loved ones with dementia (Alzheimer’s disease) | Inductive qualitative analysis     | Video/audio recordings of sessions plus interviews with family members and staff | USA     | Joint music therapy sessions with the person living with dementia and their family care partner | Residential aged care | 2 × mother/daughter dyads                                                                 | Music therapy; family-centred music therapy                                                                 |
| Hara            | 2011 | Expanding a care network for people with dementia and their carers through musicking; Participant observation with Singing for the Brain | Ethnography and grounded theory    | Participant observation and interviews, photographs and audiovisual recordings of sessions. 30 × interviews with care partners, care-receivers, volunteers, facilitators and charity reps | UK      | “Singing for the Brain”, a community-based music activity | Community group setting | 10 care-receivers, 10 carers and 15 volunteers                                                                 | Music sociology, community music therapy                                                                 |
| Hara            | 2013 | We’ll meet again: Music in dementia care                               | Ethnography and grounded theory    | Participant observation and interviews, photographs and audiovisual recordings of sessions. Interviews with care partners, care-receivers and volunteers | UK      | Community music groups     | Community group         | Approximately 30 participants including care-receivers, family care partners, group leaders and volunteers | Music sociology, community music therapy                                                                 |

(continued)
| Author        | Year | Title                                                                 | Research Methodology | Data Collection                                                                 | Country | Intervention Type | Intervention Setting | Participant Details | Professional/ Theoretical Framework |
|--------------|------|------------------------------------------------------------------------|----------------------|--------------------------------------------------------------------------------|---------|-------------------|----------------------|----------------------|-------------------------------------|
| Lee et al.   | 2020 | Promoting well-being among people with early-stage dementia and their family carers through community-based group singing: a Phenomenological study | IPA                  | Semi-structured interviews with individual participants (separately)             | UK      | Community singing group facilitated by a music therapist | Community group setting | 6 × dyads             | Music therapy; person-centred       |
| Macgregor    | 2016 | Music therapy: A bridge to communication for familial care partners of persons with dementia | Thematic analysis    | Audio recordings of pre and post interviews, care partner respondents’ journal logs, and the researcher’s observational field notes and journal log. Researcher took notes by hand after sessions | USA      | Home-based therapeutic music supported by a music therapist | Home-based           | 4 × dyads             | Music therapy; personhood          |
| Osman et al. | 2016 | ‘Singing for the Brain’: A qualitative study exploring the health and well-being benefits of singing for people with dementia and their carers | Thematic analysis    | Semi-structured interviews with dyads                                           | UK      | Community group music program 'Singing for the Brain' | Community group setting | 3 × mother/daughter dyads, 7 × spousal dyads | Music psychology                  |
| Shibazaki and Marshall | 2017 | Exploring the impact of music concerts in promoting well-being in dementia care | General qualitative analysis | Semi-structured interviews                                                   | UK/Japan | Music concerts in care homes for people living with dementia and their families | Residential aged care | 53 participants: 27 people living with dementia, 13 family members, 9 nursing/volunteer staff, 4 care/activities managers | Clinical psychology               |
| Unadkat      | 2015 | Theorising group singing for couples in dementia care                   | Grounded theory       | Semi-structured interviews                                                   | UK      | Group singing     | Various community group settings | 17 dyads             |                                     |
Appendix B: Search Strategy Development

SPIDER

The SPIDER (Sample, Phenomenon of Interest, Design, Evaluation, Research type) tool caters specifically to the needs of QES (Cooke et al., 2012). The results from SPIDER (see Table B1) informed the development of the review’s search phrase, inclusion/exclusion criteria and search protocol.

Search Phrase

Based on the SPIDER results and related systematic reviews (Dowlen et al., 2018; Sellars et al., 2018), I developed a Boolean search phrase which was refined through five rounds of scoping searches (see Table B2). To capture the broadest pool of relevant publications, I applied a comprehensive approach in the database search phrase by limiting database search terms to the population and intervention (Methley et al., 2014).

| Sample | People Living with Dementia and Their Family Care Partners (Dyads) |
|--------|---------------------------------------------------------------|
| Phenomenon of Interest | Shared musical activities across a range of settings |
| Design | Any qualitative design capturing participant quotes and/or non-verbal/musical responses (including interviews, video data, photos and observations) |
| Evaluation | Reports dyads’ experiences and/or perspectives |
| Research type | Qualitative research |

Table B1. SPIDER tool results.

| Search Round | Boolean Phrase | Notes |
|--------------|----------------|-------|
| 1            | (Dementia OR Alzheimer*) AND (music OR singing) AND (qualitative OR participatory OR interview OR survey OR voice OR perspective OR experience OR "focus group") AND (carer OR caregiver OR spouses OR couple OR family) | This search seemed to be missing some articles based on including ‘qualitative’ terms |
| 2            | (Dementia OR Alzheimer*) AND (music OR singing) AND (carer OR caregiver OR spouses OR couple OR family) | Significantly more articles, but some known articles missing. Need to test additional terms (choir, songwriting, choir) |
| 3            | (Dementia OR Alzheimer*) AND (music OR singing OR choir OR songwriting) AND (carer OR caregiver OR spouses OR couple OR family) | Known articles included, time to test for new term identified (relati* and caring) |
| 4            | (Dementia OR Alzheimer*) AND (music OR singing OR choir OR songwriting) AND (carer OR caregiver OR spouses OR couple OR family OR relatii*. OR caring) | Relati* brought up many irrelevant articles and no additional relevant articles. Caring did not seem to add any relevant articles. Both to be removed. Need to test for new terms identified (partner and dyad) |
| 5            | (Dementia OR Alzheimer*) AND (music OR singing OR choir OR songwriting) AND (carer OR caregiver OR spouses OR couple OR family OR partner OR dyad) | Partner and dyad added what look like relevant articles. Seems like a good balance of breadth and specificity. One more term to test - different spelling of song-writing |
| 6            | (Dementia OR Alzheimer*) AND (music OR singing OR choir OR songwriting or song-writing) AND (carer OR caregiver OR spouses OR couple OR family OR partner OR dyad) | |

Table B2. Scoping search rounds.

Database Selection

Previous reviews (Dowlen et al., 2018; Sellars et al., 2018) indicated music therapy-related databases such as PsycINFO and CINAHL, as well as relevant journals for hand-searching. I utilised Bramer et al.’s (2017) recommendations for optimal database combinations and arrived at a comprehensive search strategy (see below).

Final Search Strategy

Boolean search phrase: (dementia OR Alzheimer*) AND (music OR singing OR songwriting OR song-writing OR choir) AND (carer OR caregiver OR spouses OR couple OR partner OR family OR dyad).

Databases: PUBMED, EMBASE, Web of Science Core Collection, Google Scholar, ProQuest Dissertations and Theses Global, PsycInfo, CINAHL Complete, RILM Abstracts of Music Literature.

Journals for hand-searching: New Zealand Journal of Music Therapy, British Journal of Music Therapy, Music Therapy...
Perspectives, Nordic Journal of Music Therapy, and Voices: A World Forum for Music Therapy.

**Appendix C: Inclusion/Exclusion Criteria Checklist**

**Title.** Shared musical experiences for people living with dementia and their family care partners: A thematic synthesis

**Research Question.** How do people living with dementia and their family care partners experience shared musical activities?

**Definitions.** People living with dementia are defined as people with a diagnosis of any type of dementia. *Family care partners* include family members or friends who provide informal care for the person living with dementia (i.e. not a paid employee). These pairs of people may be referred to collectively as a dyad. *Shared musical activities* are defined as a musical experience (active or receptive) where both members of the dyad are involved.

**Framework.** People living with dementia and their family care partners’ experiences will be explored both individually and through a family-centred lens as a dyad, which recognises the interconnected nature of these relationships (Hao & Ruggiano, 2020). For this reason, proxy accounts of people with dementia’s experiences will be included when provided by the family care partner.

**Table C1. Inclusion/Exclusion Criteria.**

| Include | Exclude | Justification |
|---------|---------|---------------|
| **Methodology** | Primary research reporting first-person expressions of subjective experiences and perspectives (or proxy reports by family care partners) | Literature reviews of primary research studies | Aim is to extract voice/perspective of participants |
| **Methods** | Qualitative studies; first-person accounts (e.g. interview, self-completed scales/questionnaires and other forms of self-expression); proxy accounts by family care partners | Quantitative studies, mixed methods studies | As noted by Zeilig et al. (2019), quantitative measures alone may be a somewhat reductive approach to measuring complex concepts such as experiences of music. As this study aims to explore the complexity of participants’ experiences, a decision has been made to limit the scope to include qualitative studies only, as this will ensure a focus on participants’ individual experiences rather than limited pre-defined categories |
| **Participants** | Studies where people living with dementia and their family care partners are involved in shared musical activities | Studies that do not include both people living with dementia and family care partners; studies with mixed participant populations (e.g. people with dementia + older adults without dementia) that do not present results of each group separately | Aim to clearly identify voices/experiences of people living with dementia and their family care partners |
| **Intervention** | All settings | No exclusion | Dyads may have valuable experiences to share across a range of settings |
| **Settings** | Any | None | Rich qualitative data may be found in all sample sizes |
| **Sample size** | Any | None | |
| **Music interventions** | Studies with a primary focus on the use of music for people living with dementia and their family care partners. This may include formal and informal musical experiences, as well as both active and receptive music experiences | Studies that do not focus on the use of music; Studies with mixed-modality interventions (e.g. music with art, music with exercise etc.) | Aim to identify impact of music only |

(continued)
Appendix D: CASP and GRADE-CERQual

CASP Results Summary

- Nine out of 13 studies met all CASP quality criteria (Critical Appraisal Skills Programme, 2018)
- Five out of 13 studies met most of the criteria
- One study did not provide a clear aim
- Three studies lacked enough detail to properly assess the analysis, recruitment approach or researcher/participant relationship

GRADE-CERQual Results Summary

The following results summary is based on the methodology, coherence, adequacy and relevance of this study’s main findings (Lewin et al., 2018). See McMahon et al. (2022) for the full results.

| Findings | Assessment of Confidence in the Evidence |
|----------|----------------------------------------|
| Shared musical activities support wellbeing for people living with dementia | High confidence |
| Music groups become ecological systems | High confidence |
| Experiences of shared musical activities change over time | High confidence |
| Shared musical activities are experienced by me and as we | High confidence |
| Music is a supportive structure | Moderate-High confidence |
| Connection | Moderate-High confidence |

Table C1. (continued)

| Topic | Include | Exclude | Justification |
|-------|---------|---------|---------------|
| Studies that report on people living with dementia and family care partners’ first person experiences and/or perspectives of shared musical activities (active or receptive) | Studies that do not report on dyads’ experiences and/or perspectives of music | Aim to explore participants’ experiences of shared musical activities |
| Peer-reviewed journal articles, Masters and PhD theses and dissertations, peer-reviewed book chapters | Editorials, conference abstracts and proceedings, blogs, reports, reviews | Aim to identify the representation of dyads’ experiences within peer-reviewed research specifically |
| Studies in English | Studies in languages other than English | Non-English studies may complicate attempts to define concepts/ experiences due to issues around language and translation |