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The benefits of caregiver singing and receptive music in dementia care: a qualitative study of professional caregivers' experiences

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ABSTRACT

Background: For persons with dementia, receptive music may reduce negative expressions and increase positive ones. Caregiver singing (CS) is an intervention aimed at facilitating care situations and involves caregivers singing for or together with persons with dementia during care activities. In the literature, CS is commonly addressed as a music activity rather than a care intervention. The aim was to describe caregivers' experiences of the reactions of persons with dementia when using CS and receptive music in dementia care.

Method: The data comprised three focus group interviews with 12 professional caregivers in dementia care, analysed using qualitative content analysis.

Results: the analysis resulted in two themes: *"CS increases interaction and builds companionship"* and *"Receptive music soothes, awakens memories and reflects the person's self"*.

Conclusion: Both CS and receptive music was shown to have positive influences, and while the results were sometimes intertwined, CS was shown to better facilitate problematic care situations.

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KEYWORDS

Caregiver singing; dementia care; focus group interviews; receptive music; qualitative content analysis

Background

The population of older people is increasing and in turn that of persons with dementia (Alzheimer's Disease International, 2018). Dementia includes a range of diagnoses, but, regardless of diagnosis, persons with dementia commonly express so called behavioural and psychological symptoms of dementia (BPSD), which includes e.g. anxiety, apathy, depression, sleep disorders and eating disorders, resistance and aggression (Deardorff & Grossberg, 2019). The term responsive behaviors refer to actions exhibited by individuals with dementia in response to confusing, negative, or frustrating stimuli in their environment (Alzheimer Society of Canada, 2017). These behaviors, such as resistance or aggression towards care, are particularly prevalent during activities like bathing, dressing, and eating (Fauth et al. 2016). Coping with these behaviors can prove challenging for both the

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caregiver and the individual receiving care (Fauth et al. 2016; Wang et al. 2016). Responsive behaviours could be seen as communication of unmet needs. Addressing these needs requires a person-centered perspective grounded in humanistic and relational ethics. This approach mandates that caregivers possess ethical awareness, actively listening to, confirming, and responding to the expressed needs of individuals with dementia as foundational principles in their interactions (Edvardsson et al. 2008).

Pharmacological treatments to treat BPSD are available, but they provide only temporary relief and are associated with considerable side effects, such as confusion, apathy, dizziness, low blood pressure and tremor (Ohno et al. 2019). Thus, the risks associated with pharmacological treatments outweigh the benefits, a motivation in the use of non-pharmacological treatments (Dyer et al. 2018). Non-pharmacological treatments include physical exercise, reminiscence therapy, pet therapy, art therapy and music-based therapy and activities (Sikkes et al. 2021). A common aspect of these treatments is that they should be person-centred, meaning that they should be individualised and based on the individual's own preferences and wishes. They should also focus on meaningfulness (Chenoweth et al. 2019; McNiel & Westphal, 2018).

Music-based activities have been used in dementia care for decades, and research shows that receptive music (music listening), and interactive music, such as sing-along activities and playing instruments reduce depression, agitation and resistance (Cho, 2018, Clare & Camic, 2020; Lee et al. 2022; Pedersen et al. 2017; van der Steen et al. 2017). Receptive music is identified as the most prevalent activity (Raglio et al. 2022) and in a review by Tsoi et al. (2018); it was established that receptive music is more effective in mitigating responsive behaviors compared to interactive music. However, contradicting this, Gomez-Gallego et al. (2021) concluded that receptive music is not as effective as active music-based interventions and does not elicit the same level of engagement. In a study by Cheung et al. (2020), a comparison between receptive music, music-and-movement, and social activity revealed that all three interventions were successful in reducing agitation, with no significant differences between the groups. Another study by Murphy et al. (2018) found that receptive music increased moods and socialization in individuals with dementia.

Dahms and Haesner (2018) stress music to be an important part of the biographies of persons with dementia, and thus that staff shall motivate and assist the persons in attending music activities and listen to music as it increase socialisation, and relaxation. Emphasizing the significance of music in the biographies of individuals with dementia, Dahms and Haesner (2018) underscore the importance of staff motivation and assistance in encouraging individuals to participate in music activities and listen to music, as it contributes to increased socialization and relaxation.

Active music-based interventions by singing in groups has shown increased engagement and interaction (Evans et al. 2017), including choir singing between persons with dementia and their relatives (Thompson et al. 2021). Singing seems beneficial in increasing interaction and communication. However, as most responsive behaviours occur during care situations, treatments focused on these situations should be prioritised. Furthermore, music-based activities have not been shown to be long-lasting and, thus, are unlikely to affect the responsive behaviours that may occur during subsequent care activities. Accordingly, research needs to focus on facilitating care situations (van der Steen et al. 2017). Brown et al. (2001) introduced *caregiver singing* (CS; also called music therapeutic caregiving),

defined as *when caregivers sing for or together with persons with dementia during care situations*. The aim is to transfer the positive outcomes of singing to care situations where responsive behaviours commonly occur in order to increase interaction and cooperation between persons with dementia and caregivers. Studies of CS have mainly focused on morning care, with the results showing that cooperation, communication and engagement increased compared to morning care without CS (Götell et al. 2009; Götell et al. 2003; Hammar Marmstål et al. 2010a; Engström et al. 2011; Hammar Marmstål et al. 2010b). Moreover, negative behaviours and emotions, such as resistant behaviours and agitation, decreased, while positive emotions increased (Engström et al. 2011; Engström et al. 2010; Hammar Marmstål et al. 2011b; Hammar Marmstål et al. 2011c; Stuart-Rohm, Baker et al. 2023). Caregivers have also reported that during CS, persons with dementia remembered and sang songs without being able to speak more than a couple of words. Even though song texts were about things other than the care activity, the participants cooperated more and seemed more capable (Götell et al. 2003; Hammar Marmstål. 2010a; Hammar Marmstål et al. 2010b; Swall et al. 2020; Stuart-Rohm, Baker et al. 2023). Caregivers have also described CS as a “bridge over troubled waters”, a tool to interact with persons with dementia during challenging situations (Stuart-Rohm, Baker et al. 2023; Swall et al. 2020). A variety of beneficial music-based activities are available and although contradictory benefits are reported in the literature, receptive music appears to be the most common. Caregiver Singing was developed to extend the positive impacts of singing into situations where responsive behaviors are most prevalent with the aim to enhance caregiving and promote increased communication and cooperation. Thus, as a care intervention, CS does not only aim to increase moods and meaningful moment but may also be a tool to facilitate challenging care situations. This study was designed to describe the differences and similarities in the use of CS and receptive music in the everyday care of persons with dementia from the perspectives of professional caregivers. Thus, the aim was to describe caregivers’ experiences of the reactions of persons with dementia when using CS and receptive music in dementia care.

Research approach and methodology

The study employed a qualitative design using focus group interviews (FGIs) (Then et al., 2014) to gain a deeper understanding of the use of CS and music in dementia care.

Context and participants

The study was conducted at two residential care facilities for persons with dementia in a medium-sized city in Sweden. Each nursing home had six units, each containing between 10 and 12 rooms for persons with dementia. For their everyday work, staff ($n = 17$) participated in music-based activity training (receptive music and CS) in dementia care, following which, they practised it in their everyday work with persons with dementia. The managers at each nursing home were given information about the study and asked to invite the caregivers ($n = 17$) to participate. The inclusion criteria were that they were working as a nursing aid or nurse assistant and worked in everyday residential care with persons with dementia. They should also have participated in the music-based activity training

(described below) and practised CS and receptive music in their work in the units. All 17 individuals fulfilled the inclusion criteria, and after being informed about research ethics, 12 of them agreed to participate and signed an informed consent form. Of these, there were 11 women and one man. The experience of working in dementia care varied from three to 26 years, with a mean of 11 years. The ages ranged from 32 to 64 years, with a mean of 50 years. The five caregivers who declined participation gave no explanation.

Intervention

The intervention comprised training that included music and CS. It began with a lecture about theories, research, the influence of music and singing on humans in general (mind, mood and in different occasions) and the use of music historically in humans' everyday lives, health care and dementia care (receptive music, sing-along sessions, etc.). It also included CS (singing during caring) in the care of persons with dementia and an overview of previous results. Following the training, the caregivers were asked to use receptive music and CS in the everyday care of persons with dementia. They were introduced to ways in which to choose music and songs during CS that were preferred by persons with dementia and in line with person-centredness, including asking their relatives about music and songs preferences. Some preferred sing-along songs, and some psalms or hit songs from their youth. The participants were asked to use receptive music (playing recorded music from a music device) and CS in situations that they thought would be preferable but with the exception that CS was always used during care situations. That is where the caregiver and the person interacted with each other and performed a care activity, such as morning care, showering, mobilisation, etc. as intended, while receptive music would be used during any situations for example during leisure time in the apartments of persons with dementia or in the common spaces.

Data collection

Four months after the lecture, data were collected through three FGLs with the participants (Then et al. 2014). The FGLs consisted of three, four and five participants based on the convenience of their working schedules. The FGLs took place at the nursing homes in a room that allowed the participants to sit around a table to discuss the questions asked. The interviews consisted of open-ended questions and were unstructured. Three questions steered the interviews: *Could you please tell me about your experiences of using CS in everyday care with persons with dementia? Could you please tell me about your experiences using music in the everyday care of persons with dementia? Could you please tell me about the differences between using CS and music?* These questions were followed up with probing questions about the reactions of the persons with dementia. The participants were also asked to talk about their reactions to the persons with dementia as well as their own reactions and feelings. The first author was the moderator, and the third author acted as an assistant, as described by Côte Arsenault and Morrison Beedy (2005). The interviews lasted 44–57 minutes and were audio recorded. The analysis was based on Graneheim and Lundman's (2004) steps for conducting qualitative content analysis. While the third author took the lead in the analysis process, all authors participated and discussed the results several times. The quotations in the results show the lowest level in the analysis

Table 1. Example of analysis process.

Meaning units	Condensed meaning unit	Codes
She gets help with feeding and everything, because she can't get started on her own. But when it comes to singing, she knows all the lyrics and sings and ... You can't actually believe it, because it is a completely different person when we sing together. She knows so many texts. I don't understand; I don't know the lyrics. She doesn't say much otherwise, but like when you sing that song, which she recognises, then you don't think it's the same woman. She sings and brings out her abilities.	A woman who needs help with feeding and everything becomes a different person when singing. She shows her abilities.	Becomes capable when singing.
We had a client; he ... swung quite quickly in his mood. At first he was so happy, and then out of nowhere it's ... he can become very aggressive. But if you put on music and his favourite album – it's Magnus Uggla – then he forgets everything. And then he joins in and moves his legs and he plays the piano in the air, and he does everything. And then he seems to be in a good mood afterwards ...	A man can become aggressive when happy. Music with his favourite album makes the man forget his anger and start moving to the music and being happy afterwards.	Favourite music calms aggressiveness.

process and are close to the text, ensuring that the results were truthful and increased trustworthiness.

Data analysis

The FGIs were transcribed verbatim, and the data were analysed using qualitative content analysis, as described by Graneheim and Lundman (2004). First, the text was read several times to gain a full understanding of the content. Next the data were divided into two content areas (Graneheim & Lundman 2004): use of 1) CS and 2) receptive music. They were analysed separately. Second, parts of the text, such as sentences or meaning units related to the aim of the study, were identified and marked (Table 1). Thus, meaning units focusing on the use of CS and music activities were grouped and analysed separately, with the aim of describing similarities and differences between the two. Third, the meaning units were condensed and abstracted into codes assigned to, for example, events, objects or other phenomena connected to the text and context (Graneheim & Lundman, 2004). Further, the codes were compared based on similarities and differences to the context and then abstracted to four sub-themes and two themes (Table 2). The

Table 2. Themes and sub-themes.

Sub-theme	Themes
Caregiver Singing makes the person focused and capable. Caregiver Singing increases energy, awareness and participation.	Caregiver Singing increases interaction and builds companionship.
Receptive music calms and influences a nice atmosphere. Receptive music awakens and brings out personality.	Receptive music soothes, awakens memories, and reflects the person's self

analysis process allowed movement back and forth to reach understanding (Graneheim & Lundman, 2004). Further, the research team discussed the analysis several times until a consensus was reached.

Ethical considerations

The study was approved by the Swedish Ethical Review Authority (register number 2016/507). The participants were informed both orally and in writing by the first author about the aim of the study and research ethics in line with the Declaration of Helsinki. They were informed that participation was voluntary and that they could withdraw at any time without explanation or consequences.

Results

The results showed both similarities and differences in the use of CS and music. The analysis resulted in two themes: “Caregiver Singing increases interaction and builds companionship” and “Receptive music soothes, awakens memories, and reflects the person’s self”. Each theme was elaborated by two sub-themes.

Caregiver singing increases interaction and builds companionship

Caregiver singing makes the person focused and capable

CS use during care situations was described as increasing the situational understanding of the persons with dementia. The caregivers reported that using CS in the morning while waking up the persons with dementia frequently made the person shine and settle, enabling them to focus on the caregiver and situation, and commonly prevented the occurrence of responsive behaviours such as resistance and aggression. The following quote describes a woman during morning care:

But when you start singing to her, she loses focus on what you are doing. And usually she sings along ... just that, turning over in bed, it can be a project. But then she does it spontaneously, when you sing. If you start humming a song, she usually takes over the song and then all the visits go much better. (Caregiver 1)

Helping a person during toilet visits was commonly described as challenging. Getting the person from the chair to a standing position can often result in resistant behaviour and struggle. By using CS during these situations, the persons with dementia often became more focused and cooperative. Similar results were described during other situations where resistant behaviours commonly occurred, such as during showering. As the persons with dementia recognised and engage with the songs, they were described as more alert and capable in the situation than without CS.

-A woman who gets help with feeding and caring in general. But when it comes to singing, she knows all the lyrics and sings and ... (caregiver 4)

-Exactly, you can't actually believe it, because it is a completely different person when she sits in a sing-along and sings and outvotes almost everyone there. She knows so many texts. I don't understand, I don't know the lyrics myself. (caregiver 6)

The nature of this focus and capability was also evident by the person being more adequate and active in different situations and remembering words, sentences or even whole songs. Several persons with dementia could sing along with the caregiver and were described as meeting the moment, even though the songs were about things other than the care activity. Traditional speech seemed unnecessary, as they were described as meeting in silent communication, where the person followed the caregiver's directions, for example, in toilet visits, without verbal instructions. CS was described as a tool for mutual communication.

To divert BPSD, in a way, can be to start a form of communication by singing instead of talking about what we were about to do ... I sang instead of speaking, and we took arm hooks and danced away in the corridor. Because that's how it was. (Caregiver 9)

The caregivers described persons with severe aphasia as being able to sing and pronounce whole sentences or sing whole songs, who could also participate in the care activity. This was described as a fantastic experience.

She remembers all the words. She sings psalms – that is, extensive psalms. She remembers every word. It's amazing, actually. She forgets a lot but not the words in hymns and songs and such. Then it is also a little easier to take her to and from the toilet. Because then she forgets that ... that she was angry and grumpy. (Caregiver 4)

However, the caregivers also described the importance of CS being personal, that is, that songs should be based on the person's preferences; otherwise, it may not be useful or could even evoke irritation.

CS was described as bringing compliance into the situation. Situations that commonly seemed to be challenging to a person could be mitigated with CS, which the caregivers described as a tool to build companionship.

I cut a lady's nails today. And with this, I used a lot of music and caregiver singing. I mean, she was happy. She leaned her head towards mine, and then she said, "Yes, you and I, yes, we'll go away later". That we kind of had something going on. Like: You're the best friend. (Caregiver 11)

The participants described that being able to create a moment of connection and calmness also made them happy.

Caregiver singing increases energy, awareness and participation

CS seemed to increase energy, awareness and joy in the moment. The caregivers reported that even though the persons with dementia were not always able to participate in the activity, CS elicited hand clapping or stomping and was described as creating communion among persons with dementia and showcasing their personality. These individuals were described as showing an absence of illness, appearing to "come alive":

We clapped our hands to a song and stomped our feet. Yes ... in some way, you free yourself, you do a little movement completely automatically when you hear singing. I can see this in one of our ladies ... It's like she became more aware, and I got to see her more as a person, so to say ... (Caregiver 10)

The caregivers reported that CS also induced joy in caregivers, which made the care situation liberating. The persons with dementia were commonly in need of help with almost all their basic needs, but CS promoted skills such as remembering the lyrics to songs or participating in an activity, all of which were described as increasing the individual's self-esteem, as they were shown to be more capable and alert. The caregivers described this as fantastic and touching, as it became obvious that the person's resources were still there, albeit in a latent state. CS, in certain situations, also encouraged routines and participation for the persons with dementia. For example, when a person liked a certain song, they reacted and became present and seemed to understand the situation:

What is it called . . . Sven-Ingvar's (a Swedish pop band) "I Call you on Friday, and Come by on Saturday". I like to turn on the music in the morning and start singing. Then, she sits up and starts singing with me. She recognises the first note immediately. So it becomes a reaction quite quickly. And it's just as if she . . . well, now I know what will happen in the morning. Now this will happen; now this will happen. (Caregiver 5)

As described above, the interaction went from one of authority to one of greater equality, as the person with dementia and the caregiver interact in a more equal way.

Receptive music soothes, awakens memories, and reflects the person's self

Receptive music calms and influences a nice atmosphere

The caregivers described those who had been engaged in music earlier in their lives (e.g. playing instruments, etc.) as having a natural connection to music. Thus, it was natural to play receptive music while attending to an individual in their living quarters, whether for caring or other purposes. The persons with dementia frequently moved along to the music or hummed, and it had a calming and positive influence on the atmosphere.

Yes, she often sits and sings along, I think. But now, she doesn't talk much. Sitting and humming, mostly now. But there's almost always music on because, otherwise, she doesn't sit still. Then, she kind of sits still and sings along a bit like that. (Caregiver 2)

The caregivers reported that the use of receptive music had long been a natural element in dementia care. They explained that through years of experience, one learns to adapt the "right music for the right person" to induce calmness and safety as much as possible. If one could meet a person with the right kind of music, it is possible to prevent responsive behaviours. The caregivers' skills, experience and knowledge of the person determined whether, for example, anxiety could be reduced by receptive music. Often, they knew what music to choose to avoid these situations. It is a way to bring a sense of familiarity and calmness to care situations:

He was going to train on an exercise bike, so I asked, "Is there a song you want to listen to while you ride your bike?" Yes, it's one that suits both everyday life and parties and training. And that is "Old Man Noah". And then it was . . . It was probably two years later. Then we sat and had some coffee on the balcony. And then everyone would get to wish for a song. It was also by phone before we had this. And then there was this "Old Man Noah". And he did talk. Often, when you ask him about music, he answers, "Old Man Noah". (Caregiver 4)

The caregivers reported that background music in the living room of the nursing home could set the mood for the whole day. When the music was suitable for the people in the

living room, for example, calm music by Elvis, everyone was calm and relaxed and seemed to enjoy it. Familiar background music could be a way to ease anxiety in a palliative moment for persons with dementia. These moments were described as inducing a calmer situation, complementing other methods to ease pain or other symptoms. Music could also create calmness and safety when caregivers left the person's room, as it seemed to make moments of loneliness, confusion or anxiety less frightening for the person.

Receptive music awakens and brings out personality

The caregivers reported that talking about the music they listened to awakened memories connected to the music – for example, the person had played an instrument or talked about a concert that they had attended – described as giving a glimpse into the persons with dementia and their life. This included observing their reactions and behaviour while music was playing:

Last night when I was working, I turned on the TV. Bosnian music on. We have a woman with us from Bosnia. And she was so happy. She danced and moved around the room. Oh, I thought, I haven't seen her before. (Caregiver 12)

The caregivers reported that music brought back memories that sometimes drove the person with dementia to dance, play air guitar or talk about memories, which arguably showed parts of their personality. The persons with dementia would talk about music connected to traditions such as Christmas and spirituality, and the caregivers could note the enjoyment of this kind of music in certain situations. They explained that for persons with dementia, their experiences and parts of their lives are sometimes revealed in these behaviours.

I remember a Christmas Eve. Then there was this couple; the man was in a wheelchair. And we were going to celebrate a little and put on some music. The lady, she is very good at dancing. Then, she stood behind the wheelchair and started dancing. And it was absolutely fantastic. Another lady came along. (Caregiver 16)

Playing recorded music as a group activity or even a single moment for the person in their room shows aspects of capability and recognition from parts of their lived experiences that may not otherwise have manifested.

Discussion

The aim was to describe caregivers' experiences of the reactions of persons with dementia when using CS and receptive music in dementia care. The results revealed that both methods were shown to have the potential to ease responsive behaviours such as resistance and aggression, as suggested for non-pharmacological methods (Burley et al. 2022; van der Steen et al. 2017), and increase positive interaction, positive emotions and joy (Hammar Marmstål. 2011; Lee et al. 2022; Lineweaver et al. 2021; Stuart-Rohm, Baker et al., 2023; Swall et al., 2020). Receptive music was mainly described as a way to introduce a nice atmosphere, increase relaxation, awaken memories and socialise and as a basis for conversations, all of which have been described in previous studies (e.g Cheung et al. 2020; Gomez-Gallego et al., 2021; Tsoi et al. 2018; van der Steen et al. 2017). Further, CS was described as facilitating caring and increasing interaction, communication, participation, and cooperation. These findings were previously found in a study comparing music

and singing in groups (Walker et al. 2021). The results show that receptive music sets a nice atmosphere, may calm, awaken and bring out the inner person. This is important, but it contrasts with CS in terms of the positive outcomes of singing together in targeting challenging care situations and creating not only joyful and meaningful moments but also facilitating challenging care situations where cooperation is crucial.

CS also seemed to be a way to improve communication and cooperation compared to the use of receptive music, which has been confirmed in previous research on CS (Hammar Marmstål et al. 2011a; Hammar Marmstål et al. 2010a; Hammar Marmstål et al. 2010b; Stuart-Rohm, Baker et al. (2023)). The results showed that singing can be used instead of talking, which has also been reported in research regarding persons with dementia, in speech and communication; it may also be preferable in certain situations and phases of dementia compared to regular speech situations in which words may have lost their meaning (Fu et al. 2018; Sihvonen et al. 2017).

During care activities, such as morning care or showering, responsive behaviours commonly occur, especially aggression and resistant behaviours (Backhouse et al. 2018). Methods for solving these situations are fundamental but sparse. CS was described by the caregivers as instrumental in avoiding severe aggressive behaviours. Thus, this seems to be an effective method, as substantiated by previous studies of CS over the last two decades. Decreasing responsive behaviours is important for both persons with dementia and caregivers, as it is highly correlated with workplace violence (Xiao et al. 2021) and caregiver burnout, as found in several studies (Hiyoshi-Taniguchi et al. 2018; Kameoka et al. 2020). Caregiver burnout is also correlated with low education (Jhang et al. 2021), underscoring the importance of education in caring for persons with dementia. However, caregiver training commonly includes basic care of different diseases, with sparse attention being paid to care interventions when dealing with responsive behaviours or training in person-centred care (PCC) (McCormack & McCayne, 2017). Even though this study was not explicitly designed based on Person-Centered Care (PCC) theories, receptive music and CS may be viewed as methods of engaging with individuals in a person-centered manner, aligning with Edvardsson et al. (2008). Songs are selected according to a person's preferences, allowing the caregiver to communicate with the individual and promote mutual interaction. Thus, the use of both music and CS could be suggested as a suitable part of staff training in dementia care and in a review by Stuart-Rohm, Baker et al. (2023) it was found that a training in a person centered caregiver singing model (PCCS) showed positive results in both persons with dementia as well as for their caregivers in terms of enhanced well-being, improved relationships, and the facilitation of the care situation. In addition, person centered care has been found to have potential to increase job satisfaction (Rajamohan et al. 2019) and thus combining both CS and PCC as in PCCS, may explain previous findings where CS also influences caregivers (Hammar Marmstål et al. 2011a; Stuart-Rohm, Clark et al. 2023). In addition, it could also be noted that music itself may enable humans to connect to their own emotions and with other humans (Cespedes-Guevara & Eerola, 2018; Reybrouck et al. 2018). Specifically, music-making and singing may also increase relaxation and a sense of positivity, which could be related to our study for both persons with dementia and their caregivers (Wang & Agius, 2018).

Methodological considerations

The study design was qualitative and descriptive, and the participants were asked to describe different situations in which they used CS or music and to talk about the differences they observed. Thus, this study may not be seen as a controlled comparative study. Even though the results are in line with those of previous research, larger controlled studies need to be conducted to draw general conclusions.

We chose FGIs, which have been shown to be suitable for obtaining rich data about the phenomenon under study. The participants had similar understandings of the use of CS and music based on common experiences but were shown to enrich the interviews with variation. The conversations were enriched when the caregivers provided rich descriptions, resulting in in-depth data. Both the moderator and assistant were skilled and experienced interviewers, and two of the researchers from the research team attended each focus group interview, which could be seen as a strength of the study.

The study did focus on only CS as receptive music and did not involve other music-based activities (sing along sessions, playing instruments etc) as the participants described a lack of competence, resources and prerequisites for that. It is a limitation to not being able to include other music-based activities, but it may also be a strength as the study design is qualitative and descriptive, and thus possible differences might be problematic to display if they had used several music-based activities.

The caregivers provided no disadvantages of the use of CS or receptive music in dementia care. However, we did not explicitly ask about this. Nevertheless, one of the authors (XXX) also held a lecture on CS and the use of music in training the participants, which may have prevented the participants from being forthright about possible negative experiences while detailing the positive aspects, which is a limitation. However, the impression was that they felt free to talk about all of their experiences.

Conclusion and implication

Both CS and receptive music should be seen as useful tools in dementia care, albeit targeting different situations. Receptive music may be most suitable to set the mood and atmosphere and, as in our study, bring calmness. It is also a way to bring out the personality of persons with dementia. The benefits of CS include its apparent usefulness to achieving cooperation during care situations. However, while financial support in the care of older people sector is generally low, training in the use of music and especially CS may be relatively low cost in relation to the possible benefits. However, this study did not include measures of economic benefit or other quantitative measures, and future larger controlled studies need to be conducted to draw more general conclusions about the various effects of CS and music and their many benefits.

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