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Characteristics of Music Therapy With Beneficial Impacts on Agitation in Dementia

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Received 1 January 2023; Accepted 9 June 2023; Published 1 July 2023

Editor: Nicky Haire

Reviewers: Julie Kolbe Krøier, Heather Edwards

Abstract

Several reviews in recent years have reported evidence of the effect of music on the serious problem of agitation in dementia. Some reviews draw different conclusions, however, which actualizes the need for studies that examine characteristics of music therapy with beneficial impacts on agitation. In an instrumental case study, documented through qualitative interviews, recordings of group meetings, and patient record excerpts, we examine how music was used intensively in interaction with a man in his 70s at a unit for persons with dementia. Music therapy was often able to ease his agitation and was especially valuable in a period when he needed to be isolated due to a suspected coronavirus infection. However, the interventions did not work every time, and his responses differed considerably. The case illustrates that music therapy can address agitation in dementia for some clients, but the claim must be qualified. Potential characteristics of music therapy with such an ability might be i) situated use of the most favored music, ii) careful adjustment to signs of pain and discomfort, iii) sustained effort to build trustful relationships, iv) transferable interaction patterns of health musicking, and v) sufficient access to attention and support for the client(s) during the musical interventions.

Keywords: dementia; agitation; instrumental case study; music preference; trustful relationships

Introduction

Agitation, which can be understood as restless and/or aggressive behavior, is a serious problem among persons with dementia. It is associated with institutionalization (Okura et

al., 2011), lower quality of life (Livingston et al., 2017), and staff-burnout (Costello et al., 2019).

There has been no consistent use of the term agitation. Yet, the International Psychogeriatric Association (IPA) has made a so-called consensus definition, which when simplified might be said to relate agitation in dementia to excessive motor activity, verbal aggression, and physical aggression associated with emotional distress. IPA also gives several additional criteria, for instance that the excessive motor activity and/or aggression is not attributable solely to another psychiatric disorder, suboptimal care conditions, medical condition, or the effects of a substance (Cummings et al., 2015).

IPA's definition of agitation might be seen as an attempt to single out a pathological form of restlessness and aggression in dementia assumed to correspond with specific brain damage. Banerjee et al. (2021, p. 1495), however, argue, that it is unlikely that there is a single neuro-biological basis for agitation in dementia. In any case, we do not think it is feasible to establish clear demarcation lines between a pathological and a natural, reactive form of agitation in dementia. To what extent agitation in dementia is a result of a lowered stress-threshold due to brain deficit (Smith et al., 2006), an expression of unmet needs (Kolanowski, 1999), a physical expression of an anxiety disorder (Mintzer & Brawman-Mintzer, 1996), or an understandable reaction to memory lapse and being in a difficult life situation (Barsness, 2018) is difficult to determine. We therefore advocate a conceptualization of agitation where it is explained by a combination of biological, psychological, and social factors, and argue that it should be handled within the frame of a person-centered approach (Kitwood, 1997).

Globally, there is a widespread use of psychotropics to treat agitation. This practice is controversial due to severe side-effects (Maust et al., 2015; Ralph & Espinet, 2018). Health authorities – like for instance the Department of Health in California (State of California DoPH, 2008, p. 23) and the National Institute for Health and Care Excellence in the UK (2018, p. 27) - state that psychotropics should only be used in the most severe cases, and that first line treatment should be different types of psychosocial approaches.

Music therapy is one of the psychosocial approaches that have been tried to address agitation. There are now several reviews that claim to find effects of music therapy and/or other types of music-based interventions on agitation (e.g., Abraha et al., 2017; Bartfay et al., 2020; Elliott & Gardner, 2018; Pedersen et al., 2017). The current Cochrane review on music-based therapeutic interventions for persons with dementia has drawn a different conclusion, however, and the authors suggest that such interventions may have little or no effect on agitation (van der Steen et al., 2018). Lam et al. (2020), in turn, found the effect to be ambiguous.

Systematic reviews and meta-analyses have, in our opinion, some under-communicated weaknesses when it comes to providing valid knowledge updates of fields with substantial heterogeneity. The use of music to address agitation is an example of such a heterogenous field (cf. Clark et al., 1998; Gerdner, 2000; Ridder et al., 2013). If researchers base their reviews on studies with participants and interventions that are only apparently similar, we risk that significant findings of something that works are masked by negative findings of something that does not work, and vice versa.

It seems, for instance, that the study of Nair et al. (2011) has contributed to the conclusion found in the review of Lam et al. (2020), namely that the effect of music therapy on agitation is ambiguous. Nair et al. (2011) found an adverse effect on the use of baroque music to reduce agitation at a dementia ward. It is worth noting that the music in this study was not adapted to the person with dementia's musical preferences. Such adaptation is normally crucial for successful music therapy. This claim might be substantiated from various perspectives, including Gerdner's randomized controlled trial (RCT) on individualized music (2000), Ruud's qualitative research on music and identity (1997), and Stige's theoretical elaborations on culture-centered music therapy (2002). We

therefore question the inclusion of the Nair et al. (2011) study in the Lam et al. (2020) review. A poorly designed study might neutralize positive effects of studies with more person-centered approaches.

The Cochrane review and meta-analysis (van der Steen et al., 2018) could have similar validity problems, due to the heterogeneity of the field. Van der Steen et al. (2018) have, for instance, in their review conducted a sensitivity analysis regarding the results from individual versus group music therapy. This analysis showed that the effect of individual therapy on agitation was clearly larger (p. 25). However, the authors do not discuss if such a trend favoring individual therapy could be a part of the explanation for why their review found that music-based interventions had so little effect when it comes to agitation.

The results of the reviews that report a summarized positive effect of music therapy on agitation in dementia should also be interpreted with some caution. The same effects will not necessarily apply to all kinds of situations and interventions and all types of sub-groups of persons with dementia in the included studies.

Hence, this situation with contradictory conclusions about the effects of music therapy in different meta-studies actualizes the need for qualitative research on the prerequisites for use of music therapy for agitation. Currently, there is a lack of qualitative studies, however, on this topic. Dowson et al. (2019), in an extensive review of studies on use of music in dementia, has included as many as 37 quantitative studies about the effects of using music to soothe agitation, but no qualitative. In this review there is, however, one important mixed method study by Gerdner (2005), which found that a success factor for individualized music in preventing or alleviating agitation concerns the stimulation of remote memory to elicit positive feelings (p. 30). Dowson et al. (2019) have also included some qualitative studies on caregiver singing at dementia institutions, that are of relevance (e.g., Hammar et al., 2010).

The review of Dowson et al. (2019) covered the period from 1980 to 2018. We therefore performed a supplementary electronic search in MEDLINE and CIGNAL for the last four years. The search did not identify any qualitative studies where music and agitation were the main theme. Three articles where it was a subtheme were identified. Swall et al. (2020) found that some persons with dementia might respond positively to caregiver singing and music, while others would become even more stressed and agitated (p. 7). In an evaluation of a guide for caregivers on the use of musical playlists, Garrido et al. (2021) emphasize likewise that the response to music by persons with dementia is not always positive (p. 2). However, listening to recorded music had a positive effect on mood, reduced agitation and made challenging times of the day less stressful for caregivers (p. 14). Hakvoort and Tönjes (2022) moreover describe how to stepwise alleviate agitation with familiar music and improvisation modelling the actions and behaviors of the person with dementia.

Nevertheless, the overall picture is that music's impact on agitation has largely been investigated experimentally through RCTs. This extensive effort to document potential effects of music and music therapy with quantitative methodology is impressive and important. However, even though the impact of music on agitated behavior apparently might be seen as feasible to document quantitatively, the complexity both in the way music may impact agitation, and the underlying reasons for agitated behavior, is hard to grasp with the established standardized assessment tools.

The impacts of music therapy on agitation are probably so multifaceted and variable that different effects both interact and interfere with each other. We need qualitative data that illuminate this complexity to be able to navigate in today's stalemate situation with contradictory evidence. Since poorly adjusted music could make agitation worse, as some of the studies presented above shows, it is especially important to provide qualitative data that can inform a discussion about the potential for harm that failed music interventions might have, as well as prerequisites for a positive outcome.

Focus

We will contribute to a qualitative investigation by presenting a case study about a man in his 70s, who received intensive music therapy at a dementia unit at a residential age care facility. We find this case suited to the exploration of how person-centered and context-sensitive music therapy can be a way of handling agitation in dementia. The research question is as follows:

What are central characteristics of music therapy with beneficial impacts on agitation in dementia?

We do not think it possible, based only on this case, to give a full theoretical explanation of why music therapy sometimes but not always may have beneficial impacts on agitation. To signal this restraint we have chosen the wording *central characteristics*, and not terms like *treatment-factors* or *mechanisms*. Neither do we claim that it is possible to identify all relevant characteristics of music therapy beneficial for agitation based on this case. Rather, we highlight the ones that we find this case most suited to illuminate. Nevertheless, our ambition is to contribute to a general discussion about the impacts of music therapy on agitation in dementia and to inspire further investigation.

The music interventions were performed in collaboration between a music therapist and several nurses. The word music therapy is often reserved for situations where a certified music therapist is involved, while the use of music by non-music therapists might be denoted as for example music-assisted care, music-based environmental therapy, or caregiver singing. However, since the collaboration between the music therapist and nurses in the case we present was close and the various practices were interconnected, we will use the term music therapy when we discuss the impacts of a cross-professional complex of music interventions. One could argue that such a wording implies a systemic understanding of a music therapy process (Stige, 2002).

Researchers' Stance

All the authors have an engagement for better health care for persons with dementia. This is rooted in professional and personal experiences, as researchers, clinicians, and as relatives. All of us have been involved in interdisciplinary efforts to foster dialogue and interactions between caregivers, relatives, and users in elderly care.

Even though it may sound naive, because it is hard to foresee the impacts of new knowledge, we find it important to maintain that research should be an enterprise aimed at reducing human suffering. This entails that when it comes to evaluation of qualitative research we advocate for a position where one evaluates not only how the accounts of qualitative studies have come about, but also how they will impact the contexts in which they are situated. This is in line with the evaluation agenda EPICURE, a resource for reflexivity in the conduction of qualitative research (Stige et al., 2009). The first dimension of this agenda, (EPIC) refers to the challenge of producing accounts (or stories if you like) based on engagement, processing, interpretation, and (self) critique. The second (CURE) refers to the challenge of dealing with preconditions and consequences of research with a focus on (social) critique, usefulness, relevance, and ethics.

Method

The case that we are going to present was chosen with a specific intention, it is used for a purpose. It could thus be denoted as *an instrumental case study* (Stake, 1995). Crowe et al. (2011) understand an instrumental case study as a type of research that uses "a particular case (some of which may be better than others) to gain a broader appreciation of an issue

or phenomenon” (p. 2).

The case is part of a larger action research project named MUSIAGI. In MUSIAGI four residents with extensive agitation problems received intensive music therapy for a period of three months. In this article we have chosen to focus on the impact on one of these participating residents. The music therapy processes in this case were multifaceted and we found them illuminative for our purpose. One music therapist and two nurses (in the following named Nurse Anna and Nurse Beth) performed most interventions. However, other caregivers were also involved.

Data Collection

This case study relies on three sets of data: i) recordings of the conversations from fortnightly group meetings in the action research project, ii) recordings of individual qualitative semi-structured interviews with the music therapist and Nurse Anna, and iii) patient record notes. See Figure 1.

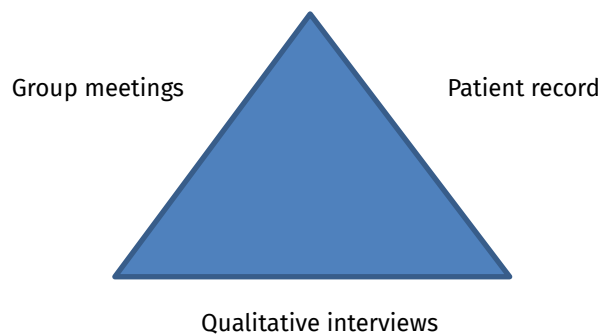


Figure 1. Three Sets of Data.

The fortnightly group meetings ended each cycle in the action research project. At those meetings, the most central staff in the project (in the following denoted as the project-group) evaluated the use of music in the last cycle and planned the next cycle. The discussions at those meetings were recorded, and subsequently transcribed.

The main author conducted individual interviews with Nurse Anna and the music therapist both before and after the action research project. In the first round of interviews, an interview guide was used as support, but there was room for follow-up questions, and free comments. In the second round Nurse Anna and the music therapist were asked to elaborate on the case this article is based on. The interviews were recorded, and transcribed.

A thorough examination of the record of the patient in the case of this article was conducted by the first author and the music therapist. They registered entries that illuminated the use of music in interaction with the patient and/or his psychological functioning.

The data collection was conducted during the Covid 19 pandemic. Our choice to rely on a combination of individual interviews, recordings of group meetings, and the patient's record might be seen as a pragmatic adaptation to the extraordinary circumstances of this period. Originally, we had for instance also planned to do some video recordings of some music therapy sessions. However, due to infection control rules, this was not feasible.

There were, however, also several deliberate reasons behind the choice of combining these three data sources. We considered recordings of the group meetings as an effective

way of documenting the gradual development of the therapeutic processes. However, since the staff needed to recall events that had happened some days ago, we found it important not to rely solely on those recordings. We have therefore examined the patient record as described above, to check if it supported what was described at the group meetings. Likewise, the second round of qualitative interviews gave added clarity to the events in the case. The data-collection of this case is therefore based on a sort of data triangulation, a “method of cross-checking data from multiple sources to search for regularities in the research data” (O’Donoghue & Punch, 2003, p. 78).

Analysis

The case-presentation is constructed so that key qualities of the process are highlighted. We focus on things that were characteristic and happened several times. To increase the applicability of the case study for a general discussion about agitation and music therapy, we have tried to implement three methodical measures in the research process recommended by Crowe et al. (2011, p. 7).

First, we emphasized *respondent validation*, receiving immediate feedback during the group meetings concerning concrete suggestions about how to understand the impact of music therapy. A first draft of this article was also presented for the music therapist and Nurse Anna.

Second, we used *theoretical sampling*, which implies seeking additional data based on concepts developed from initial data analysis (Ligita et al., 2020). The feedback on the first draft of this article for instance spurred extra investigations, where we looked back on older entries in the patient’s record to better understand how central relationships in the case we present were established.

Third, we have emphasized *transparency*, which requires openness about how the researchers have influenced the collection and interpretation of data. It should in this regard be stressed that none of the authors of this article were present during music therapy sessions. However, the main author led the fortnightly group meetings in the main intervention period of the action research project, and sometimes gave methodological suggestions based on his own experience as a music therapist in residential age care (see the Limitations section).

We have deliberately chosen a complex case, where the music therapy interventions did not work every time. Successful use of music therapy was dependent on patient facilitation over months and years, and the caregivers and music therapist showed some restraint in what they dared to try out. The case is, therefore, as we see it, well suited as a starting point for a balanced discussion about opportunities and limitations related to the use of music therapy when addressing severe agitation.

An ongoing reflection-process that started already in the first group meeting was typical for the project. During the group meetings the main author often tried to summarize what the core-group had discussed and tested those statements immediately on the group. Those syntheses were related to theories from the field of music therapy and the field of geriatrics and elderly care. During the work with this article, there was a similar analytical process. Empirical and theoretical studies have both stimulated and challenged the work of extracting from the data possible characteristics of music therapy beneficial for agitation.

Such an ongoing reflection process might be denoted as abduction, a way of reasoning that starts from the empirical findings, not from theory, yet at the same time “does not deny the role of prior theoretical knowledge in providing a background to the search for the most plausible explanation for empirical observations” (Lukka & Modell, 2010, p. 467).



Figure 2. The Research Process.

Ethical Considerations

Our study received approval from the Regional Committee for Medical and Health research ethics (REK Vest) in Norway.¹ All the staff participating gave informed consent. Participants' relatives gave informed consent on their behalf given the nature of their dementia.

The workload at the dementia units participating in the project was heavy. The Covid-19 pandemic entailed added pressure due to quarantine rules, mandatory face mask use, and sick leave. To avoid participation in the research becoming yet another stress-factor, we did not use special forms but relied on the documentation systems already in use in the departments. The participating units also received financial support from POLYFON, a Norwegian knowledge cluster for music therapy, to hire substitutes if needed.

The staff were instructed to be quick to interrupt music therapy if it was unclear whether the persons with dementia benefited from it. It was also emphasized that it was paramount to proceed carefully, since failed music therapy interventions might have adverse effects.

¹ REK ID: 81546 Navn: Musikkterapi i møte med agitasjon og uro hos personer med demens

Case Presentation

In the following we will present a case about a man who we have chosen to call 'Einar.' We will describe his problems, needs, resources, and his participation in the action research project.

Einar, a married man in his 70s, had lived at the dementia unit for five years when this project started. He was living with vascular dementia and suffered from stomach pains and frequently returning cluster headaches. Einar had not lost his ability to speak, but he rarely initiated a conversation. A serious problem was that he frequently reacted with kicking and hitting during dressing or bathing, because he believed that the staff would hurt him.

It was a challenge at the unit that some of the persons with dementia became stressed and angered each other. Einar was vulnerable here, and easily ended up in conflicts with other residents. For instance, one entry in his record described how he tried to strike a fellow patient. When the staff intervened, he had pointed to his left eye (where he had been struck) and said, "I must be allowed to defend myself."

This conflict was an example of how Einar's aggressive behavior often could be understood as a reactive response. There were also situations, though, where Einar batted his arms at passing staff without a discernible reason. Some staff members were afraid of him, but Nurse Anna and Nurse Beth emphasized that he was actually a very kind person. They interpreted Einar's threatening body language as more an expression of insecurity than anger.

To give Einar some space, the nurses often led him to a corridor where he might walk restlessly back and forth for long periods of time. However, Einar's wife visited him regularly and brought him heart-shaped chocolates. Moreover, he would sometimes laugh at funny situations at the ward, and he had developed a special trust in a small group of the staff, among them Nurse Anna and Nurse Beth.

Some years earlier, the normally very silent Einar had surprised Nurse Anna when he one day suddenly started telling jokes. Nurse Anna described this as an eyeopener; she understood that Einar had several remaining resources, and she was motivated to increase her effort to get to know him. The positive relationship she gradually built with Einar required both professionalism and forbearance, such as when Einar once punched her hard in the stomach. The music therapist commented: "He tests you, before he eventually starts to trust you."

One of Einar's remaining resources proved to be especially important, namely his long-time love for the British rock and roll icon Cliff Richard. The staff did not know much about why Einar had such a fondness for this artist, except that he had attended a concert with Cliff Richard once.

Six months prior to the project, the music therapist had worked with Einar in several music therapy sessions. In those sessions Einar usually sat silently, listening to the music therapist playing the guitar. The music therapist proceeded very slowly and with care and tried not to stress Einar. Einar was not responding much, but there were moments of eye contact with the music therapist. Einar sometimes also stopped and asked the music therapist when he met him in the ward: "Are you going to play?"

The music therapist started after a while to watch YouTube videos together with Einar and made the important discovery that nothing engaged Einar more than videos of Cliff Richard. According to the music therapist it was not only the music, but also the artist himself that Einar loved. It seemed that Einar in some way identified with Cliff Richard.

Due to his positive responses to music therapy, and because it was interesting to see what might be achieved through an increased frequency of music therapy sessions, Einar was chosen as a participant in the action research project. After his wife consented on his behalf, he became one of four participants. In the action research project, the music

therapy interventions for Einar were planned and adjusted in the already mentioned project group every fortnight.

The main researcher suggested that one should not involve too many caregivers in interaction with Einar in the beginning of the project. Based on his own clinical experience he worried that it could be difficult to secure the quality of the interventions if too many staff were involved at an early stage. The core-group agreed upon this, and it was decided that Nurse Anna and Nurse Beth and the music therapist first should spend some time to assess which situations typically agitated Einar, and test out different ways of using music therapy to address his feelings.

The music therapist was present at the unit twice a week for many hours at a time, waiting for the best opportunity to engage with Einar and other patients. Nurse Anna and Nurse Beth used the same spontaneous and adaptive approach, both together with the music therapist and independently. If Einar did not respond positively to the music therapy intervention on the first try, their flexible availability made it possible to make a new and often successful attempt a little later. The music therapist believed that he during this initial period had a final relational breakthrough with Einar. Einar tended to be skeptical of other men, but it seems that Einar now really had started to accept and trust the male music therapist.

Halfway into the project the project group felt ready to involve more staff members. Nurse Anna wrote a care plan, which recommended that the staff invite Einar to watch music videos of Cliff Richard. As described in the introduction, the use of caregiver singing or recorded music in daily routines has been found to sometimes prevent agitation (Clark et al., 1998; Swall et al., 2020). The project group decided, however, not to use the music of Cliff Richard during bathing or dressing. Einar was so stressed in those situations that the project group worried that adding music could lead to overstimulation, or even make him start to associate his beloved music with something negative.

How often Einar received music therapy varied. Nurse Anna and Nurse Beth did not always work in Einar's ward. And even when they or other nurses that had experience with the use of music were available, they were sometimes too busy with other tasks to use music. Still, on average music was used every other day. At the group meetings there was a broad consensus that this music therapy approach was something Einar often responded very positively to. Excerpts from his journal seem to confirm this; there are many entries where the staff reports beneficial use of music.

The responses Einar gave would probably not be considered remarkable to an uninformed spectator. It was not like he was singing along loudly or starting to dance. However, he could suddenly say things like "This song, 'Lucky lips' is my favorite!" and he became focused, calm, and relaxed; and it was possible to engage him positively in a social situation for as long as 30 minutes or even longer.

Nurse Anna emphasized however that not all the caregivers received the same amount of response from Einar. And as already described, Einar did not always accept the invitation to participate in music therapy. The reasons why Einar sometimes did not want music therapy were not always clear. In some entries in his record, it is suggested that it might be due to noise or other disturbances. In others that he had some type of physical pain.

Please also note that Einar did not seem to like to listen to music alone. Nurse Anna wrote for example in one entry that when she had to leave him during a music session he asked, "are you here now?" when she returned, and that he "clearly needs the presence of the nurse."

The most intensive use of music took place when Einar was placed for half a week in quarantine in his room, due to a suspected corona virus infection. To isolate a vulnerable person like Einar, albeit for good reasons, was very problematic. The nurses took turns sitting together with Einar in his room, so he should not be alone.

According to Nurse Beth, it was music that got them through this ordeal. Nurse Anna and Nurse Beth used music videos of Cliff Richard as a positive distraction both for themselves and Einar. Most of the other caregivers who worked with him during this period followed their example. This eased a very difficult situation.

It was normally only Cliff Richard's music that had this calming function. When Einar's music preference was assessed some years earlier it was registered that he liked popular music from the 1950s and 1960s, but in the project period he almost only wanted the music of his favorite artist. If the nurses tried to put on something else, Einar sometimes reacted like they had turned the music off completely.

When he came out after four days of quarantine, after the coronavirus test was shown to be negative, Einar was sad and gloomy. The nurses stated that this was because the isolation had taken a toll on him. In the following weeks it also seemed as if Einar felt some physical discomfort. It might have been his frequently returning headache, but also perhaps stomach pain or nausea. The main author of the article, in line with the ethical guidelines, had instructed the staff to interrupt music therapy if it was unclear if Einar enjoyed the music. Several music therapy sessions in this period were therefore quickly ended because Einar gave little response to the music.

Nurse Anna and Nurse Beth suggested however that it might be possible that this approach was too cautious. Nurse Anna highlighted that as long as Einar sat down and listened silently to the music, he probably benefited from it, since he normally was wandering so much. Nurse Beth, on her side, asked if the music of Cliff Richard could have a soothing effect on his pain conditions. It was not easy to draw a clear conclusion. However, towards the end of the project Einar seems to be in better shape, with several sessions where he clearly appreciated the music.

Discussion

We will now return to the research question of this article. Based on a theory informed discussion of the case about Einar, we will suggest possible characteristics of music therapy with beneficial impacts on agitation in dementia.

Situated use of the Person's Most Favored Music

The first possible characteristic we will focus on is how music therapy beneficial for agitation might depend on knowing the absolute favorite music of persons with dementia and not only their general musical preference. The beneficial effects of music therapy on Einar were related very closely to one artist and one type of music.

In response to this, one might argue that other persons with dementia might be more flexible than Einar. We are not aware of any studies that substantiate that musical preferences become more distinct throughout different stages of dementia. Nevertheless, it seems likely that sufficiently frequent assessments of the person's musical preferences become more crucial as the severity of a person's agitation increases.

Based on her research on pain management for cancer patients, Tan (2015) distinguishes between "trait music preference," long-term patterns of an individual's preferences in music, and "state music preference," short-term preferences for music geared towards achieving specific goals under specific situations. She claims that in addition to general musical taste, music therapists need to consider the various patient characteristics and explore potential changes in preferences under various stress-inducing situations (p. vii). If we use Tan's terminology, Einar's preference for popular music from the 1950s and 1960s was his "trait music preference," but if one wanted to use music to address his agitation during the period of the project, one needed to be aware of Einar's "state music preference" for Cliff Richard. That Einar could react as if the music were turned off if one

played something other than Cliff Richard demonstrates this.

However, for Einar it was not only the music but also his fan relation to the artist Cliff Richard that was important. Halstead (2013) has discussed fandom. She suggested that what makes a musical fandom different or special from other musical experiences is that the fan-relation facilitates a more all-consuming and *immersive* musical experience which “becomes a resource of continuity and stability across diverse and changing personal circumstances and public contexts” (Halstead, 2013, p. 84).

It is possible that the enthusiastic fan relation had made Einar integrate Cliff Richards hits in a more pervasive and stable way into his brain than other music, perhaps interwoven with his autobiographical memory. The music of Cliff Richard was in any case something very special and valuable to him in a difficult life situation.

Careful Adjustment to Signs of Pain and Discomfort

The second characteristic of music therapy beneficial for agitation that we identify through this case is an awareness of how important it is to adjust the music therapy intervention to different types of physical discomfort and pain. When Einar gave little or no response to music therapy, it could probably sometimes be attributed to changes in his physical condition, which again affected energy level and mood.

Elderly people’s level of functioning is a complicated interplay between psychological functions, diseases, psychological state, behavior, and mood (Subramaniam, 2019). Because persons with dementia often have atypical ways of expressing unmet needs, it could be challenging to identify the different types of pain or discomfort a person might have. In the first weeks after Einar came out of isolation, the nurses and the music therapist struggled with this challenge. This led to a careful approach, perhaps too careful because Einar might have benefited from the music even though he did not respond very much.

Both over- and under-stimulation might be harmful for people with dementia. One might, however, argue that from a research ethics point of view, it is more unethical to proceed with harmful interventions than no intervention at all. This calls for restraint and slow approaches. However, Nurse Anna suggested that the lack of agitation on Einar’s part might be used as a sign that music therapy was beneficial for him. This might very well be true in Einar’s case but cannot be used as a general argument. Lack of agitation due to music therapy is not necessarily a result of pleasure or enjoyment but might be because the person is overwhelmed or fixated by the music.

Nurse Beth suggested, on her side, that the music might have a soothing effect on Einar’s pain condition. This is possible, but there have been few effect studies on music-based interventions in pain-management in dementia. A recent review of non-pharmacological interventions for pain (Liao et al., 2021) only included one minor (n = 15) study on the effect of music (Park, 2010), with admittedly promising findings.

Achterberg et al. (2021) call for greater use of non-pharmacological types of pain relievers in dementia care due to person with dementia’s vulnerability for side-effects and delirium (p. 437). Future research should explore whether music therapy is one of the answers to such a call. Since pain management generally reduces agitated behavior (Husebø et al., 2011), new findings about how music influences pain in dementia would also inform the discussion about music therapy and agitation.

A potential direct “pain reliever effect” of music on persons with dementia would, however, likely be unstable. As the case of Einar indicates, there is probably a fine line between music interventions that could relieve or divert pain, and interventions that make the pain worse. This delicate balance must be maintained on a case-to-case and moment-to-moment basis. Closely monitoring fragile participants’ body language during music therapy is therefore crucial, especially if they have a reduced ability to communicate verbally.

Sustained Efforts on Building Trustful Relationships

The third characteristic that we would identify from this case is that music therapy beneficial for agitation, especially in the most severe cases, might be founded on some trustful key relationships between the persons with dementia and some of their professional caregivers. In the case of Einar, the music therapy interventions seem to depend on those key relationships but also work as a catalyst for them.

Many persons with dementia struggle to respond adequately to social initiatives from others. This might lead to somebody considering it pointless to build a relation to them. Another prejudice might be that one believes that persons with dementia do not prefer or trust some humans over others. Our case shows, however, that persons with dementia can establish new relations and be selective.

The music therapist's statement that Einar tests people before he starts to trust them is interesting here. The music therapist in our case story gained Einar's attention and trust gradually during the six months leading up to the project. During this period, the music therapist proceeded very slowly, and did not stress Einar, but let Einar sit silently and listen. This might have been crucial for why Einar gradually lowered his guard, and it underlines the fact that building relations with a person with dementia might take time, also in music therapy.

Einar's close relationship with Nurse Anna was likewise rooted in her effort and ability to win his trust. He began to trust her when she showed extra interest in him. It was also crucial that she managed to maintain her professionalism and empathy, without being repulsed by violent behavior on Einar's part. Finally, continuity was important, as she had cared for him for several years. The effort of Nurse Anna goes beyond what is normally required of professional employees and speaks to the importance of recruiting staff in dementia care with a talent for building relationships.

Despite all of this, our emphasis on some key relationships as a characteristic of beneficial music therapy for agitation in dementia may be problematized. One might, for instance, question whether Einar is truly representative of persons with dementia. For instance, not all like him will have the ability to recognize the caregivers from time to time. However, we would argue that persons with dementia nevertheless often notice and appreciate the difference when a person cares a little extra for them, even though they are not sure who this person really is. Thorstensen (2018) has suggested that relation-building in music therapy with persons with dementia sometimes occurs as a sort of *relational moment*, which we interpret as short but important moments of mutual trust. Trustful, reciprocal, and sustained relationships are in our opinion possible even in severe dementia, if i) the persons with dementia at least in some short glimpses are aware of that the caregivers really care about them, and ii) the caregivers see it as their professional responsibility to use such relational moments to create an authentic relationship. Thus, a relational approach might be crucial also if the person with dementia has a weaker ability than Einar to recognize people.

Transferable Interaction Patterns of Health Musicking

Not only the project group, but several other staff members, managed to use the music of Cliff Richard in interaction with Einar. We would, in this regard, argue that it probably was possible for Einar to recognize similarities or patterns in how the different caregivers were putting on the videos, how they were sitting together with him, and how they all were acknowledging an artist that he really loved. The transfer of those interaction patterns probably made Einar less skeptical and scared, and is our fourth suggested characteristic of music therapy beneficial for agitation.

Some might perhaps see the successful involvement of so many of the staff as another counter argument to our emphasis of key relations. However, we would argue that there

is no contradiction here, since the interaction patterns this skill-sharing relied on, to a large extent first were established by the music therapist, Nurse Anna, and Nurse Beth. One might say that they functioned as a sort of trusted installer of a music interaction “program” in the lifeworld of Einar, which other staff members could be involved in later. This program was based on what Stige has denoted as health musicking (2002, pp. 210-213; 2012).

Agitation at a dementia unit happens in many different situations at different junctures. One might thus argue that it is a problem that must be solved collaboratively and inter-disciplinarily. Music may be suited to facilitate such collaborative efforts. Clinical experience and theories, for instance from resource-oriented music therapy and community music therapy, could be used to underpin music as having a sort of ripple effect, that is, as something that connects contexts around clients (Rolvsjord & Stige, 2015).

Especially in the four days when Einar was isolated, the musical interaction patterns functioned so well that they could be used as a common care-strategy by most of the staff. We do not know, however, if the health musicking would have been just as successful if Einar had been isolated for a longer time. Nurse Anna also emphasized that not every caregiver received the same response from Einar. Moreover, musical interaction patterns that can be spread throughout an institution might be vulnerable for negligent or careless use and continually need to be revitalized and adjusted. Nevertheless, the case of Einar seems to underpin that musical interaction patterns established in one relational context with a trusted few, even though they are fragile, might at least partly be transferable.

Sufficient Access to Attention and Support

The final characteristic we suggest; that the client(s) has sufficient access to attention and support during the musical interventions, could be related to a trend favoring an individual format in the Cochrane review of van der Steen et al. (2018). Yet, despite our interest in this trend, we do not suggest that an individual format per se is a characteristic of music therapy beneficial for agitation. A group format might sometimes be just as good, or better.

The Cochrane review of van der Steen et al. (2018) found little or no effect of music-based interventions on agitation. However, van der Steen et al. registered in a sensitivity analysis of their results a trend regarding agitation that clearly favored an individual format (p. 25). One might ask if effects of music delivered individually have been neutralized by lack of effects or adverse effects of music delivered in (some types of) groups.

The case of Einar might underpin that an individual format has advantages. If music interventions are only offered in groups, it is for instance probably more challenging to create music therapy that uses the most favored music of the person with dementia, and it might be harder to adjust carefully to signs of pain and discomfort. Interestingly, in one of the group studies that found no effect on agitation, as included in the Cochrane review, it is stated that “the therapists who participated [...] all reported, based on clinical expertise, that the group size of five participants is far too large for the treatment of severe disruptive behaviors by one single therapist” (Vink et al., 2013, p. 1037).

The case of Einar seems to support this statement. During music therapy, Einar needed to have all the attention, and the music had to be based exclusively on his preferences. We would therefore argue that Einar probably would have become more agitated, and not less, had he participated in a group study like the one mentioned by Vink et al. (2013). In other words, the potential for using music to help Einar would not have been discovered in all types of research design.

As we have seen, it was a problem at Einar’s unit that agitation triggered agitation. Lack of effect or adverse effects might therefore be particularly likely when music therapy is offered in large groups where all or most of the participants have agitation problems. However, not all the studies on individual music therapy included in the review of van der

Steen et al. (2018) found effect. An individual format is not a guarantee for success. The increased possibilities that an individual format might provide for adjusting the intervention to the person in question is more to the point than the format itself. Furthermore, a group format has its own advantages: Friendship and supportive behavior might also exist between persons with dementia, and some might feel safer in a community. It is also important that the feasibility of a group format cannot be appraised only by counting agitated clients; one must also consider if there are caregivers available for clients who need individualized attention and support.

Even though we have not tested this in the study, it seems reasonable that it sometimes might be possible to include a person with dementia like Einar with severe agitation problems in a group, at least if not too many of the other clients have similar agitation problems. It may, however, be a prerequisite that one sees it as legitimate and possible to prioritize the musical preferences of this person. One caregiver must perhaps also sit next to the person, helping the person to focus on the music. Based on all of this, we suggest the following as the fifth characteristic of music therapy with beneficial effect on agitation: Sufficient access to attention and support for the client(s) during the musical interventions. This wording signals that an individual format might be preferable in some situations, without ruling out the use of various group formats.

Limitations

Our findings should be interpreted considering some limitations. First, the trust building processes between Einar and the staff prior to the project were more diverse and included more people than presented above. We do not, for instance, have sufficient data to describe the establishment of the trustful relation between Nurse Beth and Einar, among other things because we did not conduct separate interviews with her.

Second, when we claim that interaction patterns related to music therapy seem to be transferable, we also need to allow for some reservations. Our material does not make it possible to document such rippling effects in detail. Further qualitative studies on agitation should aim to document the interventions in real time with audio or video recordings.

Third, it should be acknowledged that it is hard to fully grasp how the main author's role as leader of the group meetings has impacted the action research project. An active role in processes related to development of practice is common and natural in action research projects, and it brings depth to the researcher's understanding of the context and practice to be studied (McNiff & Whitehead, 2006). That he had an active role where he participated in the discussion about new steps in the ongoing music therapy processes, probably also contributed positively to the quality of the music therapy. It was also a way of monitoring that the research project was conducted in compliance with its ethical guidelines.

A drawback of such an active role, however, might be that it makes it harder to rule out that we have not fallen into confirmations traps. For example: we have seen that the main author suggested that not too many caregivers should be involved in the first weeks of the action research project. We believe that the events in the action research project show that this way of building on some key relations was beneficial for Einar. Yet, we cannot rule out that it could have been possible to involve more staff earlier. In other words, it is possible to argue that we cannot know for sure that the importance of some key relations for Einar would have been (at least to some extent) less striking in our data, if the main author had not suggested building on those relations.

Finally, our suggestion of central characteristics for beneficial music therapy is supported by Stake's (1995) emphasis on theory-development as a constitutive aim for instrumental case studies. The generalizability of case studies is contested, however, and

at least to some extent one might ask how representative Einar is for persons with dementia. We would therefore like to stress that our suggested characteristics are in no way meant as fixed tenets. Still, case studies that are strategically and intentionally chosen might make probable how some conclusions are more trustworthy than others, and function as useful starting points for further investigation.

Concluding Remarks

This case could on the one hand be perceived as pointing towards the *robustness* of music as a therapeutic approach to address agitation in dementia. It is remarkable that the music of Cliff Richard in the life of Einar continued to be a source of joy and solace for such a long time. So many other things were destroyed by cognitive decline, pain, and disease, but the ability to respond to this music remained.

The case could on the other hand also be understood as pointing towards the *fragility* of this approach. The music therapy interventions did not always work as intended, and its value and effect on agitation depended on many factors. It was almost only the use of music that represented the core of Einar's musical identity that was effectual, and headaches and other types of physical pain could hamper its effect. The music therapy also required that somebody had the time to experience the music together with Einar, focusing only on him. Furthermore, perhaps most importantly, it was built on some especially trustful relations established patiently and gradually prior to the project.

Based on this we suggest five characteristics of music therapy with beneficial impacts on agitation in dementia i) situated use of the person's most favored music, ii) careful adjustment to signs of pain and discomfort, iii) sustained effort on building trustful relationships, iv) transferable interaction patterns of health musicking, and v) a sufficient access to attention and support for the client(s) during the musical interventions.

If one should try to summarize the case about Einar even more succinctly, one might perhaps say that it shows that music therapy's ability to ease agitation in dementia is something very *precious*. It is a robust but at the same time fragile potential for relief that should be nurtured and protected, since it often is related to the last bulwark in a person's life struggle. Nevertheless, if this possibility is used wisely, it has a precious value as something that might help persons with dementia who struggle with restlessness and fear to feel calmer, safer, and less afraid of others.

Acknowledgments

The authors would like to thank all the participants who took part in this study, as well as the involved health leaders of the municipality where it was conducted.

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