

Music in Care Home Settings: Guidelines for Implementation and Evaluation Based on the Music Interventions for Depression and Dementia in ELderly Care (MIDDEL) Study in the UK



RESEARCH

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ABSTRACT

Context: Music-based interventions are widely acknowledged to promote the wellbeing of care home residents, particularly those whose communication is impaired, such as through stroke or dementia. Yet in such settings the use of music is limited for reasons that are not entirely clear.

Objectives: The Music Interventions for Depression and Dementia in ELderly care (MIDDEL) trial in 16 English care homes was used as a case study to highlight key issues which appear to affect the successful implementation and evaluation of music-based interventions.

Methods: The fidelity data from the MIDDEL trial was used to develop inferences in consultation with interventionists and researchers. Based on the literature about implementing psychosocial interventions in care homes and data from this study, a checklist was developed to enhance implementation and research pertaining to music-based interventions in care homes.

Findings: New insights were found on the adherence of interventionists to the fidelity criteria. Pragmatic issues relevant to conducting a trial immediately after a pandemic are highlighted, including: the difficulties of maintaining engagement with care home personnel and the practicalities of delivering an intensive intervention to a population who have depression and dementia. We derive recommendations for improving future interventional studies in care homes.

Limitations: The participating care homes may not be representative of the industry. The Covid pandemic complicated the study in numerous ways documented here.

Implications: The lessons learned offer guidance for future implementation and research on music-based interventions in residential care settings.

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WHY PROMOTE MUSIC-BASED INTERVENTIONS IN CARE HOMES

This paper focusses on the implementation of music-based interventions in care home settings, drawing on evidence from a trial comparing music therapy to choir singing in residential care homes. In such settings, where there may be a need to create common feeling amongst an otherwise disparate group, shared music can have a unifying effect and promote social bonding. Lee et al. (2022) attribute increased socialisation and connectedness between carers, visitors, and residents to music-based interventions. Communication is said to be more effective when music is deployed (van Manen et al. 2021; Waters et al. 2022).

There is also a substantial body of evidence to indicate that music has specific therapeutic benefits for residents in care settings: It can bring enjoyment and enrich quality of life (Fancourt and Finn 2019; Meadows and McLennan 2021; Hoang et al. 2022). It can improve food intake if played at mealtimes (Fetherstonhaugh et al. 2019). Music has the power to allay anxiety (van der Steen 2018; Atchison et al. 2022) and agitation (Hsu et al. 2015; Livingston et al. 2014; Ridder et al. 2013). It may improve apathy (Brodsky and Burns 2012) and can potentially lift depression (Burley et al. 2022; Baker et al. 2022). For people with Parkinson's disease, music can help mobility as well as other aspects of physical functioning (Machado Sotomayor et al. 2021; Garcia-Casares et al. 2018). To apply such evidence in care settings, a fuller understanding is needed of the issues affecting the take-up of music as a novel psychosocial intervention in care homes. Facilitators and barriers to implementing psychosocial interventions in residential care have been reviewed by Dugmore et al. (2015), Boersma et al. (2015), and Rapaport et al. (2017), while Amano et al. (2022) looked specifically at music in this context. In this paper we use their findings to frame some recommendations for the implementation of music in care homes.

THE WIDER STUDY CONTEXT

Music Interventions for Depression and Dementia in Elderly care (MIDDEL) was a pioneering multicentre, cluster-randomised controlled trial to determine effectiveness of two prevalent forms of music-based interventions in care settings: group music therapy (GMT) and recreational choir singing (RCS), alone and in combination (Gold et al. 2019). The practical differences between GMT and RCS in qualifications, professional registration, training, and group size indicate a difference in costs and availability of facilitators favouring choir singing.

MIDDEL therefore set out to investigate which tailored music intervention works best for residents with both depression and dementia living in care home settings. A favourable ethical opinion for the UK arm was granted

by Wales REC4 on 20 October 2020 (20/WA/0226). The study was undertaken in six countries over three years, starting in 2019. Most of the MIDDEL study was therefore done against a backdrop of the Covid pandemic in 2020–22. This entailed severe staff shortages, quarantine closures to care homes, limited access to care homes for researchers and interventionists, and restrictions on social singing activities amid general uncertainty about risks of virus transmission—with gradual relaxation of restrictions in 2022–23 when the UK data were collected.

Undertaken in six countries (Australia, Turkey, Germany, Norway, the Netherlands, and the UK), MIDDEL recruited over 1,000 residents in 86 long-term (residential or nursing) care home units internationally. There is a great deal of variation in relation to residential care between the participating countries, including how care is funded, attitudes towards residential care, and the amount of music activities provided as standard. For clarity, this paper focusses on the UK arm of MIDDEL, and all the homes were in England. Its aim is to highlight lessons learned from the study that can be transferred to future implementation of music and non-pharmacological research in care home settings.

METHODS

The approaches to music-based interventions studied by MIDDEL differ in important respects. GMT is practised by certified music therapists with broad musical skills, who use music to address individualized goals within a therapeutic relationship. In the UK, music therapists are recognised allied health professionals regulated by the Health and Care Professions Council (HCPC), and they usually work with individuals or relatively small groups of people. By contrast, RCS is practised by people who are musically skilled and able to accompany a choir with an instrument, and have experience with conducting amateur choirs for adults. It is a less specialised approach and can be offered to larger groups of individuals.

The rationale for and development of fidelity strategies is described in Baker et al. (2019). This paper sets out the underpinning principles of these strategies. Manuals were developed for each of the two interventions prior to start-up of sessions. The manuals included specific features, requirements, goals, session format, and steps for implementation, and were developed and agreed upon by scientific and clinical experts in the participating countries. Online training was delivered to the interventionists based on the manuals. A third strategy to ensure fidelity was the provision of forms, based on the intervention manuals, that interventionists completed at every session. The forms also had free text fields for comments (see Appendices). Additionally, sessions were routinely videorecorded, with the camera facing the interventionist to permit in-depth video-analysis of their adherence to the guidance. The fidelity

forms for GMT (25 items) and RCS (10 items) are the primary source of data for this paper. The RCS sessions were open to the other residents in the home, and they often included people who were not participating in the trial. This also occurred once or twice for GMT sessions, due to low numbers. Only data pertaining to participants enrolled in the study is reported here.

Free text comments were transcribed and coded by JS and JA. Interventionists were invited to a meeting to aid the interpretation of these data, and those who could not attend provided written feedback. Initial codes for the interventionists' comments were derived from a close reading of the data, using reflexive thematic analysis (Braun and Clarke 2006); coherent recurring ideas were mapped in relation to each other and refined through discussion with the interventionists and research team.

The fidelity criteria for GMT and RCS were then tabulated. There was little variance by home or interventionist, so the adherence across all homes was calculated by item on each scale. The first and last fidelity forms returned were taken to indicate the start and end date of each

intervention. They were numbered sequentially, so, in a few cases where forms are missing, we assume that a session was delivered as indicated by a gap in the numbering. The recording of attendance at each session was also used to indicate whether a session was provided in two homes where some fidelity forms were missing.

RESULTS

A total of 192 residents in 16 care homes were recruited to the study in the UK; 12 of these homes received interventions, while the remainder were allocated to a control group receiving only standard care. Four intervention homes were randomised to receive both forms of intervention over a six-month period. Four homes received music therapy only, and four received choir singing only.

Table 1 lists the homes by intervention arm. It shows when they were randomised and when the intervention started and finished, together with the number of sessions delivered and what proportion of sessions was

HOME	ARM	RANDOMISED	START DATE	END DATE	RCS SESSIONS		GMT SESSIONS	
					DELIVERED N	ATTENDED M (SD), %	DELIVERED N	ATTENDED M (SD), %
1	RCS + MT	09 01 2022	23 01 2022	22 07 2022	36	5.31 (5.42) 15%	34	5.85 (5.57) 17%
2	RCS + MT	<u>12 05 2022</u>	<u>02 08 2022</u>	23 01 2022	36	15.8 (7.44) 44%	33	15.7 (7.38) 48%
3	RCS + MT	12 08 2022	24 08 2022	23 02 2023	35	13 (10.41) 37%	36	9.36 (7.2) 26%
4	RCS + MT	<u>26 10 2022</u>	<u>23 12 2023</u>	24 05 2023	36	10.36 (9.35) 29%	33	5.55 (4.59) 17%
5	RCS	09 01 2022	26 01 2022	07 07 2022	36	6 (4.06) 17%	0	–
6	RCS	12 05 2022	15 06 2022	21 12 2022	36	22.09 (13.28) 61%	0	–
7	RCS	<u>17 06 2022</u>	<u>09 08 2022</u>	07 02 2023	38	29.71 (12.12) 78%	0	–
8	RCS	26 10 2022	28 11 2022	18 05 2022	36	11 (10.75) 28%	0	–
9	MT	<u>09 01 2022</u>	<u>01 03 2022</u>	29 07 2022	0	–	35	12.71 (6.98) 36%
10	MT	22 05 2022	01 07 2022	01 02 2023	0	–	34	19.9 (14.76) 59%
11	MT	12 08 2022	30 08 2022	19 01 2023	0	–	33	14.67 (12.53) 44%
12	MT	26 10 2022	28 11 2022	22 05 2023	0	–	36	8.8 (11.45) 24%
Overall					289	39%	283	34%

Table 1 UK homes participating in MIDDEL.

Notes:

1. There was a time lag of over 6 weeks between randomisation and the first intervention session in several homes (underlined). In some cases this was due to virus lockdown precautions, in others the interventionists were unavailable.
2. The number of sessions attended was calculated thus: participant attendances/number of participants × number of sessions delivered. The number of participants varied between 10 and 21 (median 11).

attended by trial participants. Delays are not uncommon in trials of non-pharmacological interventions (Boutron 2017: 44). These arose, between randomisation and the initiation of music in the homes, due to interventionists' availability as well as issues affecting access to the homes—notably, virus-related lockdowns. The number of sessions delivered was nevertheless adequate, ranging from 33 to 38 in all homes and both interventions. However, participants attended on average fewer than 40% of their allocated sessions, and there was wide variation between homes (15%–78%, see Table 1). This succinctly illustrates the impact on the trial of the issues to be discussed in this paper.

Compliance with the intervention fidelity criteria for GMT and RCS is shown in Tables 2 and 3, respectively.

Interventionists were compliant with a high percentage of the key criteria, with some notable exceptions. Choir leaders found that there was little point providing lyrics (37% compliance), which could cause participants confusion and prove counterproductive due to their inability to read or due to memory problems. For similar reasons, a GMT fidelity criterion, recapping on previous sessions, was found to be unhelpful by music therapists (55% compliance); however, choir leaders had high compliance for recapping sessions (95%). Otherwise, the self-ratings deviated from the fidelity criteria mainly in the 'optional' elements: notably, movement to music and related activities, as well as playing solos on instruments, which were aspects of the GMT sessions.

MUSIC THERAPIST ACTIONS IN GROUP SESSIONS (N = 283)	% COMPLIANCE
Summary of session	
Uses consistent song to begin session	90%
Recaps previous sessions activities	55%
Outlines plans for the session	81%
Records attendance and reason for non-attendance	99%
Uses consistent song to conclude each session	90%
Activity 1: Singing familiar songs (15 minutes)	
Engages participants in singing familiar/preferred songs	94%
Facilitates song choice: moves from open- to close-ended choices as needed	90%
Facilitates discussion/reminiscence on at least one occasion in the session	91%
Regularly engages each participant individually using eye contact, facial expression and gesture	94%
Acknowledges and mirrors participants' verbal and non-verbal responses (e.g. singing, moving)	94%
Adapts music (extends songs where participants appear highly engaged, adapts tempo, volume, style to attune to overall group energy)	94%
Adapts music (as above) to encourage participants displaying apathy or agitation	69%
Uses appropriate facial expression/gesture, to encourage individuals and draw out responses	94%
Uses a diversity of songs to meet musical interests/cultural background of the group	94%
Activity 2: Instrument playing (5–7 minutes) – OPTIONAL	
Offers choices to participants of instruments to be played – open-choices and then closed choices	81%
Demonstrates how instruments are to be played and checks each participant knows how to play	78%
Verbally and with gesture encourages participants to play along	79%
Extends the duration of the song if participants are highly engaged in the performance of a song	72%
If appropriate, encourages participants to play short solos on their instruments	47%
Activity 3: Spontaneous or directed movement to music (5–7 minutes) – OPTIONAL	
Facilitates either spontaneous OR directed movement to music	57%
Models movements and encourages participants to move to the music both verbally/non-verbally	54%
Spontaneous movement: initiates movement or mirrors participants' spontaneous movements to music	42%
Directed movement: Directs & models specific movements to music (e.g. dances associated with music/songs, specific exercises for head/neck, torso, arms, legs)	32%
Movements are appropriate for participants' physical abilities, interests and attention spans	54%
Selected songs are upbeat in tempo and in keeping with participants' musical preferences and physical abilities	57%

Table 2 Group Music Therapy Fidelity Form Session Compliance.

FACILITATOR ACTIONS IN GROUP SESSION (N = 289)	% COMPLIANCE
Introduction:	
Facilitator uses consistent song to begin session (welcome song)	98%
Facilitator recaps previous sessions activities	95%
Facilitator outlines plans for the session	100%
Facilitator records attendance and reason for non-attendance (eg. sick)	100%
Activities:	
Facilitator provides simple physical warm up: breathing, stretching, posture awareness (3–4 mins)	94%
Facilitator provides simple vocal warm up: breathing, stretching, posture awareness: vocal agility exercises, dynamics, harmony, humming/vowel prolongations, scales/glides/diction, arpeggios and 3rds scales (3–4 mins) practice/tongue twisters (3–4 mins)	98%
Facilitator engages participants in singing participant-selected songs for 30 mins	100%
Songs are performed with comfortable range	100%
Facilitator provides lyrics in large print	31%
Session Closure:	
Facilitator used consistent song to conclude each session	98%

Table 3 Recreational Choir Singing Fidelity Form Compliance.

COMMENTS ON THE INTERVENTIONS

Music therapists made 80 comments on their fidelity forms, and choir leaders made 76 comments (Table 4). All comments were included in the analysis. Comments could be assigned more than one code. Initial agreement between the two coders of the RCS comments was 89%, and there was 98% initial agreement on the codes for the GMT comments. For example, the following entry was coded as ‘support, delays, preparation’:

The normal organiser at the session was not available, the lady who did organise the session managed to get a larger than normal group to attend, many of whom I had not seen previously which was great to see. However, this did take time and the first people to arrive were waiting nearly 40 mins before we could actually commence and they were a little fed up of waiting! I started the session and for the first approx. 10 mins was alone with them all in the room which threw me a little hence why I forgot to recap the previous session. (Home 5 RCS, session 16)

Comments were frequently used to record reasons, e.g., for not recapping or for not using the lyrics for the songs, giving a high count to the ‘content’ code for the RCS sessions. These fidelity forms also mentioned support (or lack of it) much more frequently than the GMT forms. That could reflect a different level of experience or confidence in the setting for the interventionists providing RCS by comparison with the music therapists. For both sets of responses, lack of support was associated with adverse implications for the quality or duration of the intervention:

Session had to be shortened to 30 minutes due to staff training/meetings at the care home. (Home 1, GMT, session 9)

Since the group attendance is inconsistent and memory impairment is severe, there is often little purpose in recapping. My “hello song” outlines what we will be doing in the session. (Home 11, GMT, session 20)

In numerous instances, this amounted to a deviation from the study protocol, which specifies a 45-minute session for all the study participants in each intervention home. Apart from content, the most frequent comments referred to attendance at the sessions. This was evidently a major concern for all the interventionists, who were aware that the people participating in the study were often missing and therefore unable to benefit. The comments were used to account for non-attendance and, occasionally, to explain the successful attendance of the participants.

Only four residents were present from the programme, one left for the toilet before we even started and [did] not come for the session. Two more left for the toilet before the end and did not return. I had no staff present for the session to help retrieve residents. No explanation for absences. (Home 3, RCS, session 3)

Since the group attendance is inconsistent and memory impairment is severe, there is often little purpose in recapping. My “hello song” outlines what we will be doing in the session. (Home 11, GMT, session 20)

CODE	EXAMPLES	GMT MENTIONS	RCS MENTIONS
Context (beyond home's control)	Covid, Christmas, heatwave	13	11
Content of session	Lyrics books or not	16	33
Preparation for session	Lack of awareness on part of staff	11	17
Delay to session	Participants arriving late	7	10
Attendance at session	Few participants in the room	37	30
Support for residents	Lack of care staff	7	26
Engagement by residents	Sleeping during session	13	20
Disruption (within the home)	Residents needing 1-1 support Deliveries, visits, meals, meds etc.	18	15

Table 4 Codes and their frequencies in GMT and RCS Fidelity Forms.

Most of the obstacles to attendance were attributed in the comments to a lack of preparation of support staff for the study and sometimes to staff inertia, which led to delays in bringing participants to the music sessions.

Today was the first session, they did not seem very aware that we were coming. The lady I called at 9 am to confirm was based in a different home. We arrived at 9.30, they did not seem to be expecting us. They kept us waiting for 10 mins, there was no urgency and I had to ask if they could find the appropriate person. The song books/folder/list of participants were locked in an office no one could access. No carers were present throughout the session. (Home 8, RCS session 1)

The comments convey regret about the missed opportunity for residents and the interventionist's lost time:

On this occasion the session was attended by one resident who remained asleep despite gentle attempts to waken. Familiar music was played but the session was not concluded with the usual goodbye song since the person was not awake to hear it. (Home 11, GMT, session 30)

One interventionist, a music therapist, commented that the recruitment of residents seemed to affect their engagement with the music activities provided:

In some homes, the manager/activity co-ordinator had approached residents who simply met the inclusion criteria of dementia + depression. In other homes, they had approached residents who met the criteria, but also who they judged to be likely to respond well to music. In one of my homes, where the participating residents had been approached by the manager, the activity co-ordinator made comments which implied that

the MIDDEL participants were not the people she would have approached to try music therapy. Low attendance was attributable to the fact that these residents declined to come or disliked leaving their rooms.

This may reveal some selection bias towards individuals whom the manager deemed likely to benefit at the recruitment stage of the study, but it is not possible to confirm. In addition, staff sometimes prioritised activities other than the research study, such as snacks, medical appointments, or family visits. Once people were in the room for the intervention, keeping them engaged was challenging unless staff in the home remained present throughout a session. Staff presence was not guaranteed, so we recruited volunteers to support the intervention in several homes.

Events beyond the control of the care home sometimes impinged on the implementation of the intervention. These included a heatwave in summer 2022, Covid-related vaccinations, and public holidays, including Queen Elizabeth II's funeral in the UK. Little could be done to avoid these contingencies, which have been coded as factors relating to the 'context' of the study. However, comments suggest that many of the difficulties faced by interventionists could have been avoided if the home staff and managers were more engaged with or committed to the study. These incidents are coded as 'disruptions' within the home. It is likely that many of them could have been managed to minimise their impact on the study. An interventionist who worked in two care homes compared the one where real efforts were made to accommodate the study to the other where this was not the case:

All the attendees had a specifically different care plan in place for that day. To facilitate the afternoon singing, [Home 7 in Table 1] had to reschedule everything . . . and it was on every individual's care plan for the day to make sure that

they will be awake and fed and they would have had their rest time and they would be in upright and mobile enough to come into the session.

So in [Home 3 in Table 1] where there's absolutely no planning whatsoever and a lot of changeover of staff and people didn't know it was happening. It was certainly not recorded on individuals' care plans – not even on the day plan, that they need to be delivered, you know? So they had to be phoned and asked and or I had to go physically to get them from the corridor where they were.

It is clear from this experience that obstacles to delivering the intervention, and therefore to successfully conducting the research, were not insuperable. It is clear from the difference in the number of sessions received by residents of homes 3 and 7 in Table 1 that much more could be achieved by management and planning. However, this is not an easy undertaking. The interventionist's quote shows that care home staff would often need to make substantial adjustments to their schedules and processes to ensure that residents were able to attend sessions.

ISSUES FOR MUSIC INTERVENTIONS AND RESEARCH IN CARE HOMES

Some responsibility for a poor response within certain homes may be attributed to insufficient preparation and planning of the research project. For instance, no feasibility study for a trial was done beforehand. Covid precautions were a major issue for rolling out the study, so briefings took place online rather than in person, and it therefore could be difficult for the research team to build rapport with care home staff.

For the care homes, the intervention involved a considerable change to the routine of staff and residents, particularly for the care homes receiving the combination of GMT and RCS: a total of four weekly sessions for three months, then two weekly sessions for three months. It should be noted that the intervention often took place in a room that was also used for other activities; residents and staff who were not in the study could not be excluded from communal spaces, and this caused some disruption. The problem of suitable space for data collection was also raised by data collectors who reviewed these findings, since a noisy environment could be detrimental to their interviews.

Turning to the importance of staff engagement with a novel intervention through training and education (Boersma et al. 2015; Rapaport et al. 2017), care home personnel are skilled professionals who are motivated to support the residents. Yet they may be unfamiliar with the constraints of research and may even see research

as contrary to residents' wellbeing. The present study illustrates several ways that care home staff played a key role in the success or failure to adhere to the intervention requirements and, by association, with the research protocol. On a positive note, the researchers reported that data collection was often made easier by the reassuring presence of familiar care staff. By contrast, there were recurring issues around securing attendance at intervention sessions, turnover of personnel, inadvertent disclosure of residents' intervention status to researchers, and failure to communicate in a timely way when the home could not accommodate a visit by interventionists or researchers. There was one problem concerning storage and security of research data in the home, when a folder went astray during redecoration of a room where it was stored. Care staff were often confused about which residents were meant to attend which intervention sessions—understandably so, where both RCS and GMT were happening during the same weeks.

Regarding the importance of attendance at intervention sessions, not disclosing study status, and communication with the researchers, we concluded that all members of staff in a participating care home need to be fully briefed, not only those supporting the intervention or responding to assessments. Given high staff turnover in many homes, such information needs to be repeated at regular intervals. For research purposes, new personnel may be less able to answer questions about residents. Since proxy ratings should preferably be completed by the same person at each time point, steps need to be taken to minimise these risks to obtaining reliable data by ensuring effective communication with managers about personnel changes and availability.

Our findings are consistent with Dugmore et al. (2015), who highlighted the impact of organisational culture, availability of resources, staff workload, and the suitability of the physical environment as factors influencing implementation. For instance, a care home where the organisational culture is output-focussed may give priority to task completion over use of psychosocial interventions like music. Characteristics of the care personnel also influenced implementation: Their capabilities, confidence, and attitudes mattered, as did whether the intervention was regarded as 'real' work. This aligns with the 'whole home' approach advocated by Lawrence et al. (2016), whose interview study highlighted the importance of interpersonal relationships and the perceived value of the intervention. Together this evidence indicates the importance of capturing the collective will of care home personnel to engage with any innovation, be this an intervention or a research study.

A critical aspect of staff involvement was the requirement to bring participants to the music sessions in time, and there were adverse effects on fidelity to the intervention when staff failed to meet this expectation.

Everyday life in these care homes in the year following a pandemic was greatly affected by staff absences. A reduced number of personnel frequently found it necessary to prioritise task-based care for residents over the commitment to the research study. We addressed this problem in some homes by recruiting volunteers to assist the interventionists where possible.

While low attendance was often due to logistical difficulties bringing residents to sessions, other factors also contributed, such as participant illness, participant inertia taken to mean they were declining sessions, and attrition to study involvement due to withdrawal or death.

As in any intervention study, overcoming these obstacles was an essential role for the project manager. It proved important for the study team to be able to work flexibly as well as to have excellent communication with the care homes. It was vital to have a good understanding of the culture of residential care and to communicate effectively. Written documents (email and paper) did not get much response, and direct contact was restricted by Covid precautions at the time. In other circumstances, regular face-to-face meetings would have been desirable. While we appointed a main contact person in each care home, shift patterns affected their availability, and capacity fluctuated across their period of involvement with the study.

In the MIDDEL UK study, care home managers were asked to confirm in writing at the outset of the study that they would allocate a member of staff to attend each intervention session to support residents; however, this was often not fulfilled. Moreover, it was often difficult to reach managers or deputies who had the authority to respond to our requests. We inferred that they were sometimes operating in a crisis management mode, with insufficient staff. We cannot escape the conclusion that we overestimated their capacity to support the study from the outset. This may be at least partly because, as a research team, we were proud to be offering a valuable intervention—six months of music-based interventions—for free.

Amano et al. (2022) found insufficient evidence to compare the effectiveness of different implementation approaches to music as an intervention. They recommend greater involvement of implementation scientists in future studies and helpfully list 46 discrete steps that were undertaken to promote implementation in different music studies (Amano et al. 2022: Table 3). Their conclusion is that more attention should be given to the structural determinants of implementation: specifically, external policy and financial incentives or disincentives. Staff shortages resulting from the pandemic could be seen as a significant determinant of implementation.

The literature cited here reminds us to address education and training, organisational culture, and external influences, but these generalisations need to be interpreted in specific and measurable terms. In the

light of our experience with MIDDEL, we have derived nine concrete ‘lessons learned’, for future reference and to support interventional research in care homes, particularly music-related studies. These have been validated by the MIDDEL researchers and interventionists. We commend them as a checklist, both to facilitate the take up of music in residential care settings and to ensure that research into music—and indeed other non-pharmacological interventions—addresses common barriers in this context (Box 1).

Box 1 Guidelines for implementation and evaluation of music in care homes.

1. Identify all those people who are likely to be affected (stakeholders). This may go beyond the direct care staff and intended music participants to others in the home; e.g., family visitors, and catering and cleaning personnel.
2. Describe the proposed intervention in clear, understandable terms, and explain the rationale and evidence behind it to all stakeholders. Reinforce the explanations with easy-to-read graphics and information.
3. Involve stakeholders in the logistical planning of the intervention, to negotiate time, place, frequency, length and if applicable, who is eligible to attend sessions.
4. Explore how the intervention affects the stakeholders’ usual activities and routines, to resolve any potential problems.
5. Specify in detail how staff are required to support the intervention, both verbally and in writing. Ensure that this responsibility figures in their job descriptions. Make the role description available at every session.
6. Formalise the role of any volunteers, such as family visitors, who will attend the sessions, specifying this in detail verbally and in writing.
7. Draw up ground rules which are shared between beneficiaries, interventionists, and staff. E.g., ‘Interventionist arrives 10.50, participants are in the room by 11.00, session ends by 11.45, room vacated by 12.00. No food or drink except water. Residents and visitors must stay for the entire session.’
8. Appoint someone who has authority to ensure compliance by care home personnel and is accountable to researchers through continuous communication to monitor these ground rules.
9. Monitor implementation, review ground rules, repeat steps 3–6.

There are obvious implications in following these guidelines for the research time budget, as well as for the valuable time of care home personnel. On reflection, the UK researchers on the MIDDLEL study were fully occupied with the technical aspects of the study requirements and with overcoming the problems presented by anti-Covid measures, leaving few resources for embedding the intervention in the homes. While we were successful in paying Study Support Costs to participating homes through the National Institute for Health and Care Research's (NIHR) Clinical Research Network, these payments were made retrospectively, so they could not be used to alleviate the demands on care home staff at pressure points in the study.

Our interpretation of the evidence presented here is that, together with adequate and timely funding for study set-up, a few months of focussed preparation following the guidelines put forward could have paved the way for better adherence to the interventions under examination, as well as more efficient data collection during the crucial trial period.

ADDITIONAL FILE

The additional file for this article can be found as follows:

- **Appendix 1.** RCS Fidelity Scale 1 and GMT Fidelity Scale 2. DOI: <https://doi.org/10.31389/jltc.294.s1>

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COMPETING INTERESTS


The authors have no competing interests to declare.


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