

ARTICLE

Exploring the potential benefits of an online music-based meditation programme for family carers of people with dementia

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ABSTRACT

This study explores the potential psychosocial benefits of an online music-based meditation programme for family carers of people with dementia. Previous literature identifies the benefits of music and mindfulness in separate capacities for the promotion of wellbeing, positive mood and reducing isolation for family carers of people with dementia. No known literature currently exists combining meditation and music online specifically for this demographic. Thirteen family carers were recruited and participated in the study, attending a 30-minute session each week over four weeks. Additional music-based meditation resources were provided to be accessed outside the intervention at a time convenient to the participants. Data was collected through eight in-depth semi-structured interviews post intervention and analysed using Interpretive Phenomenological Analysis (IPA). There was an overall positive response from participants as the majority noted that participation in the programme had a positive impact on their mood, provided an opportunity to relax and practice self-care, process difficult emotions, and reduce feelings of social isolation. The facilitation of the programme in an online format allowed participants to access the intervention from the comfort of their home environment and negated potential barriers such as organising care, geographical location, mobility issues or access to transport. Findings from this study can be used as a base on which to develop further research in this area.

KEYWORDS

music,
mindfulness,
music-based
meditation,
family carers,
dementia,
online, psychosocial
support

Publication history:

Submitted 23 Aug 2022

Accepted 21 Feb 2023

First published 19 Jun 2023

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BACKGROUND

Caring for a family member who has been diagnosed with dementia is an often overlooked, arduous endeavour. The progressive and debilitating nature of the disease afflicts patients and their families for up to 20 years post diagnosis (Takai et al., 2009). Additionally, family carers of people with dementia are often tasked with managing long-term symptoms of dementia which can have a considerable effect on the family carers' mental and physical well-being as well as their quality of life (Lee et al., 2022).

In Ireland, there are approximately 195,000 family carers providing approximately 40 hours of care per week in the community (CSO, 2017); 60,000 of these family carers are providing care for people with dementia (Teahan et al., 2021). Due to the rigorous and time-consuming nature of the role, family carers of people with dementia are at an increased risk of experiencing carer burn-out. This may include extreme physical and mental fatigue, emotional exhaustion, lack of motivation, and decreased empathy towards others (Takai et al., 2009). These symptoms can afflict those who provide constant care to other people and have negative affective responses to caregiving. A lack of support for family carers has existed as a problem for many years with little to no access to respite or to routine supports. A recent Irish report stated that a staggering one in three carers have a diagnosis of depression while four in ten reported having a diagnosis of anxiety (Cox et al., 2019). Literature suggests that mindfulness-based programmes have the potential to help family carers of people with dementia cope with stress, anxiety and depression and promote positive well-being (Cheung et al., 2020; Collins & Kishita, 2019; Liu et al., 2018).

Mindfulness, mindfulness-based practices, music and mindfulness meditation and music-based relaxation – The similarities and differences

Given their significant overlap and widespread use, mindfulness and relaxation approaches are often used or discussed interchangeably by researchers and clinicians (Luberto et al., 2020) which can result in the difference between both practices becoming obscured. Moreover, despite concerted efforts to provide consensus descriptions, the term mindfulness has multiplicity of meanings due to its popularity with the general public. Due to considerable variations of its definition, methodologically rigorous research is somewhat absent (Crane et al., 2017; Van Dam et al., 2018). Hofmann & Gomez (2017) define mindfulness as “a process that leads to a mental state characterized by non-judgmental awareness of the present moment experience, including one’s sensations, thoughts, bodily states, consciousness, and the environment while encouraging openness, curiosity, and acceptance” (p.3). This suspension of judgement allows for open-curiosity and compassionate acceptance of unhelpful thoughts and emotions. Mindfulness practices refer to exercises and techniques that cultivate this process (Baer et al., 2019). Mindfulness-based programmes are informed by theory and practice drawn from a convergence of contemplative traditions, science, medicine, psychology and education (Crane et al., 2017) and support the development of a new relationship with self in the present moment. By attending to thoughts, feelings and body sensations experienced, greater attention, behavioural

and emotional self-regulation, compassion and wisdom is developed.

When structured appropriately, music may support mindfulness meditation and is described as having three core functions: (1) A support for mindfulness meditation, (2) a focus for mindful listening, and (3) a focus for mindful active engagement (Dvorak, in review, as cited in Hernandez-Ruiz & Dvorak, 2021). It is a suitable medium to provide an object of focus for the client's experience, while "melody and rhythm draw the person's attention inward, and changes in harmony, instrumentation, and dynamics maintain the listener's interest" (Rappaport, 2014, p. 155). If distracting thoughts occur, the listener can be instructed to gently redirect focus towards the music (Goldman, 2021). The empirical examination of the use and impact of music on mindfulness meditation to date is rather limited. The potential for mindfulness-based music interventions to facilitate down-regulation of emotions and promote relaxation has been investigated (Goldman, 2021; Hernandez et al., 2021). By facilitating an online mindfulness-based music course for 54 non-musicians, the researchers analysed the use of various musical stimuli on promoting relaxation. Slower paced, legato, and repetitive music yielded the most positive results for relaxation when combined with mindfulness meditation.

While mindfulness practices teach *acceptance* of present moment internal events, relaxation practices teach strategies to *change* internal events (Luberto et al., 2020); the aim being to reduce physiological and psychological stress and decrease physical tension via activating the relaxation response. Relaxation is a component of other techniques including listening to music, imaging to music, receptive music therapy, or in the Bonny Method of Guided Imagery (Grocke & Wigram, 2007; McFerran & Grocke, 2022). The inclusion of visualisations and imagery in relaxation help the brain to become focused and enhances the aesthetic enjoyment of listening to music (Grocke & Wigram, 2007). The authors have chosen the term 'music-based meditation' to best describe the programme outlined in this research study. Receptive methods, relaxation, guided imagery, and mindfulness practices were incorporated into the music-centred programme which mainly focused on mindful music listening practice/receptive experiences as well as active engagement through singing.

As family carers usually provide constant care for people with dementia, their ability to access appropriate support for themselves can be a challenge. Family carers have increasingly busy schedules, especially as the disease progresses. Thus, it is essential to design interventions that consume less time but are effective (Cheung et al., 2020). A potential solution to this problem can be to provide an online intervention that the carer can access at home. Kishita et al. (2021) conducted an internet-delivered guided self-help acceptance and commitment therapy intervention for family carers of people with dementia and concluded that conducting the intervention online allowed them to reach out to carers in need of additional support who were isolated in the community.

Aims

Building on the literature presented, the exploratory study presented in this paper aimed to examine the potential psychosocial benefits of an online music-based meditation programme for family carers of people with dementia. An important aim of this study was to investigate the feasibility and viability of conducting a music-based programme within an online format, and this was completed as part of postgraduate research study. Three music therapy postgraduate students (facilitators), alongside a PhD researcher (first author), and senior music therapist collaborated in the design and

implementation of this research. Before the commencement of the programme, the facilitators received a one-day training in incorporating receptive experiences and mindfulness practices into music therapy practice as part of their postgraduate studies. This was led by a senior music therapist who had completed intensive mindfulness and meditation training. In order to explore the phenomenon, we conducted the telehealth study with a purposeful sample of family carers of people with dementia guided by the following research questions:

1. Are there perceived psychosocial benefits of participating in an online music-based meditation programme for the duration of four weeks?
2. What is the feasibility of facilitating this intervention online?

METHOD

This qualitative research is underpinned by phenomenology - the exploration of the lived experience, or phenomenon, observed by the participants of the research study (Tomaszewski et al., 2020). Ethical approval was sought and subsequently approved by the Research Ethics Committee at the University of Limerick. Informed consent was obtained from all participants prior to the commencement of the study.

Research design

This study consists of two phases: Phase 1: Intervention, and Phase 2: Evaluation. Phase 1 consisted of the design of the intervention structure, the recruitment of participants and the delivery of the music-based meditation programme. Phase 2 focused on the evaluation of the music-based meditation programme and aimed to gather the personal experiences of the participants via semi-structured interviews.

Thirteen participants took part in this study, all of whom were family carers of people with dementia. Three intervention groups at different times were offered and were facilitated by three student music therapists (Facilitator 1, 2, 3). Participants were assigned to one of three groups given their availability (Group 1, 2, 3). The small number of participants assigned to each group was deliberate to allow time for discussion. The attendance rate is outlined in Table 1 below. One participant assigned to Group 2 did not attend the live weekly sessions but utilised the pre-recorded resources provided.

	Week 1	Week 2	Week 3	Week 4
	<i>[no. in attendance/no. assigned]</i>			
Group 1	2/2	2/2	2/2	2/2
Group 2	3/4	3/4	3/4	2/4
Group 3	2/5	3/5	3/5	3/5
Overall attendance (weekly)	70%	80%	80%	70%

Table 1: Number of participants allocated to each group and attendance rate

Sampling and recruitment

To identify and recruit specific participants appropriate to this research project, a purposeful sampling method was used. Participants were recruited through TeamUp for Dementia Research, an online platform where Irish people with dementia and their families can register their interest in participating in dementia research. Details of the research study and inclusion criteria were circulated to participants. As per the inclusion criteria outlined below, participants were required:

- to be over the age of 18
- to have a proficient level of English
- to be in a familial relationship with the people with dementia
- to be currently co-residing or living within close proximity to their relative with dementia
- to have access to Wi-Fi and a phone, tablet, or laptop to access the online intervention

Intervention structure

Knott & Block's (2020) three-tiered model for delivering telehealth music therapy informed the design of the intervention. The model includes the compilation of pre-existing resources, creating individualised resources and the facilitation of a live telehealth session (see Figure 1). Participants took part in a 30-minute music-based meditation programme for four weeks via Zoom (Tier 3). The sessions consisted of breathing exercises, guided imagery meditation, songs, and peer discussion and was informed by 'Mindful Music', a mindfulness-based music intervention designed by a senior music therapist, which was devised to support university staff (Alqatari et al., 2022). The session structure is outlined in Table 2.

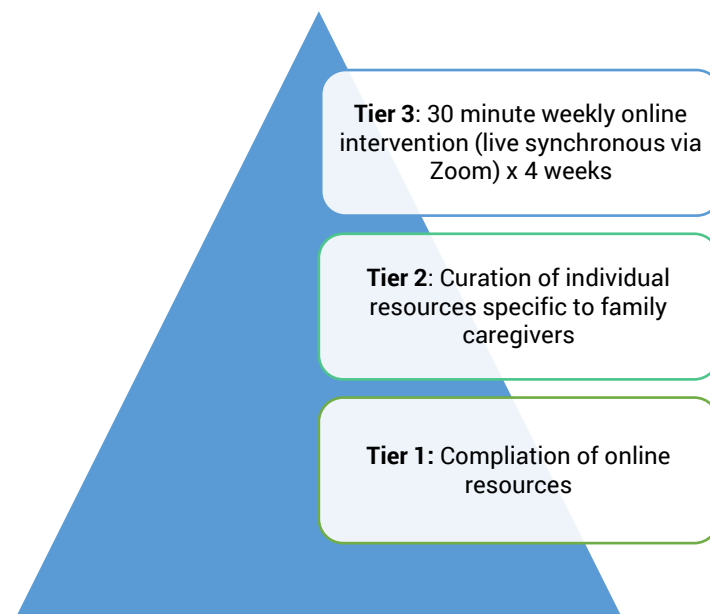


Figure 1: Visual representation of intervention structure based on model designed by Knott & Block (2020)

Activity	Details
Introduction	Verbal discussion. Week 1: Participants introduced themselves. Weeks 2-4: Participants discussed how their week has been.
Colour induction/ Body Scan (including relevant musical accompaniment)	Colour-based body scan. Participants imagine their chosen colour rising through each body part the facilitator brought awareness to. To conclude the participants would attach a different colour to the inhale and exhale during a deep breathing exercise. Participants were instructed to inhale as they heard the guitar picking an ascending broken chord and exhaling when they heard a descending broken chord.
Music-based meditation (including relevant musical accompaniment)	Week 1: Guided imagery on the concept of change, experiencing each moment while remaining one's self. Week 2: Compassionate awareness addressing kindness and friendship towards one's self. Week 3: Guided imagery meditation including a walk through the forest, including sounds of the forest to enhance the experience. Week 4: Guided imagery meditation on the concept of letting go, using one's self as the anchor and being proud.
Group singing	Week 1: 'Stand by Me' by Ben E. King. Week 2: 'Let it be' by The Beatles. Week 3: 'Lean on me' by Bill Withers. Week 4: 'You've got a friend in me' by Randy Newman.
Closing	Verbal discussion/feedback.

Table 2: Session structure for music-based meditation programme informed by Alqatari et al. (2022)

Participants were also provided with a series of music-based meditation recordings to access in their own time throughout the duration of the programme (Tier 2 & 3). The audio recordings provided were recorded pre-intervention by the facilitators of the programme. Each recording did not exceed 15 minutes in duration. Participants were encouraged to practice the exercises three times a week to support their progress. Development of this intervention required careful considerations surrounding the participants' access and ability to use the required technology. It was important to create an online location for participants to access the online resources easily. All participants were sent a link by email that would bring them directly to a Linktree webpage. An explanatory video was also provided for ease of access. All resources created were tailored specifically for this population with several options available to offer choice and meet the diverse range of musical preferences of the participants.

Data collection

To evaluate the outcomes of the intervention, semi-structured interviews were conducted individually with each participant in March 2022. Although the primary research question (Are there perceived psychosocial benefits of participating in an online music-based meditation programme for family carers of people with dementia?) formed the basis of the information sought from the participants, semi-structured interviews allowed for improvised conversation to "generate unexpected areas and insights for further inquiry" (Saldaña, 2011, p. 33). The data provided individualised perspectives, opinions, feelings, and beliefs about the participant's own personal experience of the intervention.

To negate possible bias, in Phase 2 the facilitators conducted the semi-structured interviews with participants who were not assigned to them in Phase 1. For example, as outlined in Figure 2 below, Facilitator 3 was assigned Group 3 for the intervention, but interviewed participants assigned to Group 2.

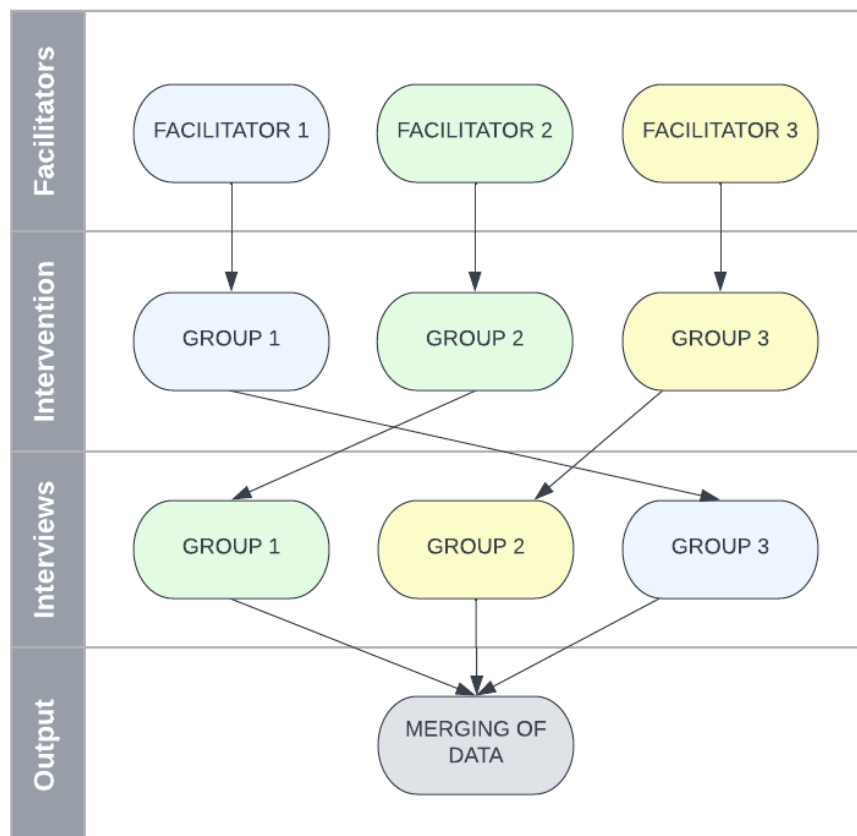


Figure 2: Visual representation of the assignment of facilitators to the intervention and evaluation phase

Interviews were conducted via Zoom with each participant the week succeeding the completion of the intervention. Interviews were 10-15 minutes in total. The interview questions were designed to evaluate the potential psychosocial benefits of the intervention (Table 3).

Example interview questions

- Tell me about your experiences of participating in the programme.
- Do you think that you benefited from taking part in the programme? How so?
- Did you find the technology easy to use?
- Were there any latency issues? How was the audio quality?
- Did you use the resources provided outside of the weekly session on Zoom?
- Would you have preferred if the sessions took place in person?

Table 3: Interview questions to evaluate benefits of intervention

Data analysis

Interpretative Phenomenological Analysis (IPA) was used to analyse the data gathered from each interview. IPA aims to “explore in detail participants’ personal lived experience and how participants make sense of that personal experience” (Smith, 2004, p. 40). The researcher using IPA seeks to retrieve an in-depth analysis of the participants’ response whilst also reviewing their own response and interpretation of the analysis. In accordance with Pietkiewicz and Smith’s (2014) IPA guidelines, there are four analytic stages the researcher can use once transcriptions are complete. They include: (a) Rereading and making notes of interview transcriptions, (b) transforming notes into emerging themes, (c) seeking out connections between emerging themes and, (b) writing up the results in IPA style.

As IPA recognises the difficulty researchers face when removing themselves completely from qualitative research, the researchers of this project did not attempt to ‘bracket’ or negate any research biases. However, to reduce the impact of biases on the study results, the data and generated codes were analysed by members of the research team and the research supervisor with the aim of improving reliability and credibility of the results.

RESULTS

Demographic

A total of 13 people took part in the four-week online music-based meditation programme. Of the 13 participants, one was male and 12 were female. All participants were or had previously been long term family carers of people with dementia. Of the 13 participants that took part in the programme, eight people (one male and seven females) participated in the interview process (61%).

Themes

Five master themes were discovered. These were: (a) carer burden, (b) self-care, (c) social support, (d) online intervention and (e) music. Connections were sought between emerging themes and constituent subordinate themes were discovered. Each master theme included predominant sub-themes and are outlined in Figure 3.

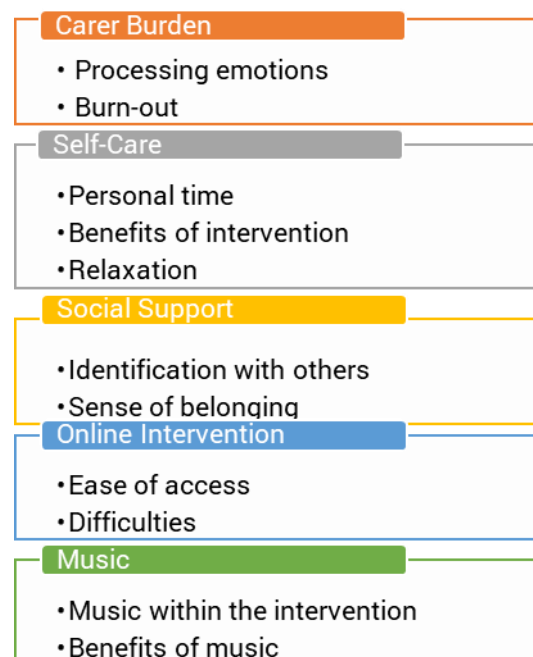


Figure 3: Visual representation of master themes and sub-themes

Theme 1 – Carer burden

Many of the participants spoke about their experience of burnout or the feelings they have daily: “caregiving is quite a high burnout so we kind of need to get energy from somewhere” (Participant F). Finding the time and energy to look for help seemed to also contribute to carer burden: “It is really difficult to motivate yourself to take time out unless you have something set in place like that” (Participant G). Another participant admitted the need for support but not knowing where to access it: “I didn’t know where to go for any kind of support or help” (Participant E). On several occasions, the lack of support available for family carers was highlighted: “there’s not so much support for carers” (Participant E). Carers felt burnout because of pressurising themselves to help their family member, leading to feeling as if they are “running out of mental petrol” (Participant F).

One participant discussed the denial their family member is experiencing in relation to their diagnosis: “I think in my particular case, my husband is in denial that he has dementia, so it makes it a little bit more difficult”. This participant continued to explain that:

Something like this [the sessions], I can just say I am doing a mindfulness course, I am doing breathing exercises. It is something that is easier to access than other types of supports that I have to hide away in the house to do. (Participant G)

Participants emphasised the benefit of the programme in providing a safe space to process their emotions. One participant stated:

The second week [of sessions] when she [the facilitator] said right think of a colour, breathe it in, breathe it out. I was able to attach with the colour going out with negative thoughts or negative people that had annoyed me or weren’t for me but going against me. So, I was able to breathe them out and say, okay, there’s my colour, but I’m also attaching negativity to my colour. (Participant A)

In addition, another participant discussed how the sessions provided her with a space for reflection, she said: “to reflect on my own emotions and my own feelings [which] helped me to process it all” (Participant E). She spoke of how the intervention helped her process the grief of her parents. She had been a family carer for both her mother and father and was finding it hard to process their passing: “The sessions have really helped me to allow... things to be released and let go” (Participant E).

Theme 2 – Self-care

Participants’ inability to find time for self-care in their daily routine was spoken of by all interviewees. They spoke of the difficulty they have when it comes to taking time away for themselves: “I’ve never really tried to do anything for myself” (Participant A). The main reasons for this included lack of discipline, motivation, lack of resources and time in their day. However, each participant appeared to be aware of the necessity for incorporating self-care into their lives as carers. Participant C spoke

about how she believes that “you need to be in good form yourself to be able to deal with whatever it is you need to deal with”.

Although the need for self-care was acknowledged, “I have found that the more you are able to look after yourself, the easier it is to care for somebody else” (Participant G), it became apparent that some participants experienced guilt when thinking about taking time for themselves: “As a daughter, you can just be ridden with guilt the whole time because you are not doing enough... sometimes you can just burn-out from trying to do too much because it is a situation that is not going to improve” (Participant H).

Four of the participants spoke about how the intervention gave them the incentive to try and build self-care into daily life. The consensus from them was that the intervention allowed them to get back into using meditation as a tool for self-care: “I suppose it gave me time to think, as yourself as important as anybody else as well” (Participant B).

Theme 3 – Social support

One of the main benefits of the programme appeared to be the idea that the participants could identify with each other, “people that are in the same situation, and they understand, you all understand what the other is going through” (Participant D). Participants acknowledged that the idea of sharing this space with other family carers was special saying: “I did feel there was something quite special about sharing things, sort of feelings and experiences with others. Even though you don’t know the others, you do feel you’ve got a bond with them” (Participant E), while another commented: “You knew that they were in the same boat as yourself, so it was a nice, shared experience” (Participant H).

The social aspect of meeting people appeared important as one participant noted, “Even just the social, meeting people... it was a good experience overall and I am glad I did it” (Participant F). Although the intervention was online, there appeared to a sense of belonging for the participants, “It felt like I was in the room with other people. Even if it’s virtual, you know, I still felt very much part of it” (Participant E).

Theme 4 – Online intervention

The technology appeared to be widely accessible for most participants. The intervention worked well online, connecting people that otherwise may have never met: “The great thing about Zoom is that you can do something like this all over the country, really. It shouldn’t matter where you are. You can still get people involved” (Participant G). Another participant noted that the delivery of the intervention online made the programme more accessible to her:

[I] could have had my mom here and put her in another room and left one of my kids sit with her and watch a quiz on the telly for the half an hour. I am quite happy that it was online. (Participant A)

Similarly, another said, “I suppose for just half an hour, I think to be going somewhere to do it would detract from... Is it worth it for just a half an hour meditation? In that sense, the online was a better experience” (Participant G).

Participants could also use the resources for this programme in their own time which was another significant benefit. One participant commented that “it is something that you can also practice outside of the actual session. I did try it and I fell asleep to it. I tried the visualisation and the breathing exercise. That is useful as well.” (Participant G). Participants recognised that while Zoom or other online platforms may not be for everyone, it does have a place:

It is not the same as meeting people but you kind of get used to it. Too much online isn't good, it is quite tiring on the eyes. The once a week was no problem. The online world is here to stay and that necessarily may not be a bad thing.
(Participant F)

Another participant had a similar opinion, “I think Zoom has a place. I don't think it is going to disappear now because we are back to normality [Post-Covid]” (Participant F). While the benefits of technology were noted by most participants, others had difficulty accessing the intervention online stating “I'm not very computer literate” (participant D). Participants also recognised that singing on Zoom is not the same as in person, “for everybody to sing in Zoom there's always or can be delays or things like that” (Participant C).

One participant spoke of the potential benefit of extending the time to facilitate social interactions between the participants: “There might have been a few minutes where we might have gotten to chat, where that might have gone on a little bit for us... as maybe a relief kind of our situations” (Participant A). An extension in time would have allowed the participants to engage in verbal communication amongst themselves and “if somebody was struggling with something that maybe somebody else might have been able to give a suggestion” (Participant A).

Theme 5 – Music

The participants highlighted the contribution of music to the sessions. A common view amongst the interviewees was that the music benefited the sessions: “Music has been a great power of healing and keeping people together” (Participant A). One participant discussed the contribution of the guitar in the sessions: “The guitar strumming as an indicator of your breath and things... it does add more to the mindfulness itself rather than just being silent” (Participant C).

Perhaps it is easier to get involved musically online, “I actually like singing, I just don't like anybody hearing me” (Participant G). For this participant the sing along at the end while muted on Zoom was an enjoyable experience.

DISCUSSION

It was important to evaluate the accessibility of the online intervention for participants, particularly the advantages, disadvantages, barriers, and limitations. Overall, for this sample of family carers, the advantages seem to outweigh the disadvantages. Participants from all over Ireland were able to access the intervention, diminishing potential barriers such as geographical location, access to transport, childcare, or organising care of their family member. Being able to access the intervention from the comfort of their own home was invaluable to the participants as there was less time needed for travel

to the location or organisation. Participants admitted that travelling somewhere to participate in the intervention would hinder the mindfulness aspect of the programme.

Most participants said that the intervention had a positive impact on their wellbeing. The intervention provided “30 minutes for ourselves, it can just really set you up” (Participant B). This is important as research has shown that family carers have a high possibility of developing mental health issues (Brennan et al., 2017; O’Dwyer et al., 2016; Joling et al., 2018). Spousal carers are also likely to prioritise the health of people with dementia over their own (Brennan et al., 2017) and this was evident in this study as participants described their inability to take personal time in their daily routine and feeling the need to constantly care for their family member.

By implementing the three-tiered design adopted from the work of Knott & Block (2020), the pre-recorded material provided participants with an accessible medium to complete music-based meditations at a time convenient to them. By having these materials available exterior to the live weekly sessions, this helped the participants to access support when they needed it. Cheung et al. (2020) found that when family carers integrate mindfulness practices into their daily routine, there is a greater probability of it becoming a technique to combat stress relating to caring for a family member. The data presented thus far supports the idea that continuous and purposeful use of the pre-recorded music-based meditation resources may promote positive coping mechanisms for family carers.

The intervention provided a social outlet for the participants to engage with other family carers of people with dementia in the same position. As one participant commented, each person could “understand what the other is going through” (Participant D) which provided the participants with a shared social experience and sense of connectedness. Participants suggested that the intervention could have provided a stronger focus on informal discussion between the family carers at the end of each session. This could enhance feelings of social connection and support as well as providing an outlet for emotional expression.

The quality of sound delivered through an online videoconferencing platform is an issue that was anticipated by the researchers. Latency, the delay between auditory/visual signals from one device being received at the other, is a significant challenge, particularly when facilitating online music interventions that seek to achieve synchronous interaction and involvement (Baker & Krout, 2009; Lightstone et al., 2015). The choice of platform is important to avoid sound absence during musical group activities as well as configuring the technology to an optimal level (Folsum et al., 2021). When sound absence occurred, a select few participants would be unable to hear the musical accompaniment of the song, removing the essence of the activity. This may be rectified by selecting specific settings to assist with sound, using external microphones and an audio interface, or alternatively, a more music-friendly platform could be used.

Difficulty in accessing the online intervention was not a prominent issue in this study but must be acknowledged. Some participants needed support each week from a family member who were adept at using technology. The authors would recommend providing a guide to using Zoom and facilitating test calls with participants pre-intervention to ensure successful participation and attendance, while also increasing independence.

Although the benefits of mindfulness-based programmes are largely documented, less attention has been paid to potential harm and adverse reactions and this remains an under-researched area.

Although no negative reactions were recorded in this study, potential areas of harm must be considered. This may be related to the participant, programme and/or facilitator and necessary precautions on how to monitor and negate them should be addressed (Baer et al., 2019).

LIMITATIONS

Due to the small sample size, the results of this study cannot be generalised and must be interpreted with caution. Furthermore, our sample is limited in relation to gender with the majority of the participants identifying as female. This could be attributable to different coping strategies between males and females (Papastavrou et al., 2007), or that it is approximated that 60-70% of unpaid family carers of people with dementia are female (Alzheimer's Research UK, 2015). Future recommendations include a larger sample size, extending the intervention time to allow for socialisation between participants, and the inclusion of pre and post qualitative measures to evaluate the benefits of the intervention.

CONCLUSION

This study demonstrates that an online music-based meditation programme can be a useful psychosocial support for family carers of people with dementia and provides evidence for the development of future research in this area. The intervention was described by participants as 'relaxing', 'enjoyable' and 'an escape' from the stresses of being a caregiver. The facilitation of the intervention online allowed participants to access the intervention from their own home, negating barriers such as organising alternative care for their family member with dementia. Similarly, the inclusion of additional resources allowed participants to access supports at a time that was convenient for them or when they needed additional psychosocial support. The development and provision of psychosocial supports for family carers of people with dementia is essential and should be a public health priority (Bressan et al., 2020). Online music-based meditation is a low-cost, accessible intervention that has the potential to promote positive well-being and self-care practices for this population.

ACKNOWLEDGMENTS

The authors would like to acknowledge the support of TeamUp for Dementia Research at The Alzheimer Society of Ireland for their support in recruiting participants to this project.

REFERENCES

- Alqatari, S., Kelly, L., Fitzpatrick, K., Cheug, P., & Moss, H. (2022). Mindful music – A pilot study of the effects of mindfulness-based music on staff members at the University of Limerick. *Music and Medicine*, 14(2), 115-124. <https://doi.org/10.47513/mmd.v14i2.853>
- Alzheimer's Research UK. (2015). *Women and dementia: A marginalised majority*. <https://www.alzheimersresearchuk.org/wp-content/uploads/2015/03/Women-and-Dementia-A-Marginalised-Majority1.pdf>
- Baer, R., Crane, C., Miller, E., & Kuyken, W. (2019). Doing no harm in mindfulness-based programs: Conceptual issues and empirical findings. *Clinical Psychology Review*, 71, 101–114. <https://doi.org/10.1016/j.cpr.2019.01.001>

- Baker, F., & Krout, R. (2009). Songwriting via Skype: An online music therapy intervention to enhance social skills in an adolescent diagnosed with Asperger's Syndrome. *British Journal of Music Therapy*, 23(2), 3–14. <https://doi.org/10.1177/135945750902300202>
- Brennan, S., Lawlor, B., Pertl, M., O'Sullivan, M., Begley, E., & O'Connell, C. (2017). *De-Stress: A study to assess the health & wellbeing of spousal carers of people with dementia in Ireland*. The Alzheimer Society of Ireland. <https://alzheimer.ie/wpcontent/uploads/2018/11/De-Stress-Report-2017.pdf>
- Bressan, V., Visintini, C., & Palese, A. (2020). What do family caregivers of people with dementia need? A mixed-method systematic review. *Health and Social Care in the Community*, 28(6), 1942–1960. <https://doi.org/10.1111/hsc.13048>
- Cheung, D. S. K., Kor, P. P. K., Jones, C., Davies, N., Moyle, W., Chien, W. T., Yip, A. L. K., Chambers, S., Yu, C. T. K., & Lai, C. K. Y. (2020). The use of modified mindfulness-based stress reduction and mindfulness-based cognitive therapy program for family caregivers of people living with dementia: A feasibility study. *Asia Nursing Research*, 14(4), 221–230. <https://doi.org/10.1016/j.anr.2020.08.009>
- Collins, R. N., & Kishita, N. (2019). The effectiveness of mindfulness- and acceptance-based interventions for informal caregivers of people with dementia: A meta-analysis. *The Gerontologist*, 59(4), e363–e379. <https://doi.org/10.1093/geront/gny024>
- Cox, C., Duffy, C., Dunne, N., Ryder, A., Hayes, M., & O'Donnell, D. (2019). *Paying the price, the physical, mental and psychological impact of caring*. <https://familycarers.ie/media/1421/paying-the-price-the-physical-mental-and-psychological-impact-of-caring.pdf>
- Crane, R. S., Brewer, J., Feldman, C., Kabat-Zinn, J., Santorelli, S., Williams, J. M., & Kuyken, W. (2017). What defines mindfulness-based programs? The warp and the weft. *Psychological Medicine*, 47(6), 990–999. <https://doi.org/10.1017/S0033291716003317>
- CSO. (2017). *Census 2016*. Dublin: Central Statistics Office.
- Folsom, S., Christie, A. J., Cohen, L., & Lopez, G. (2021). Implementing telehealth music therapy services in an integrative oncology setting: A case series. *Integrative Cancer Therapies*, 20. <https://doi.org/10.1177/15347354211053647>
- Goldman, D. M. (2021). *Exploring the role of mindfulness in music therapy: A qualitative interview study* [Unpublished master's thesis, Concordia University].
- Grocke, D., & Wigram, T. (2007). *Receptive methods in music therapy: Techniques and clinical applications for music therapy clinicians, educators and students*. Jessica Kingsley Publishers.
- Hernandez-Ruiz, & Dvorak, A. L. (2021). Music and mindfulness meditation: Comparing four music stimuli composed under similar principles. *Psychology of Music*, 49(6), 1620–1636. <https://doi.org/10.1177/0305735620969798>
- Hernandez-Ruiz, E., Sebren, A., Alderete C., Bradshaw, L., & Fowler, R. (2021). Effect of music on a mindfulness experience: An online study. *The Arts in Psychotherapy*, 75, 1–7. <https://doi.org/10.1016/j.aip.2021.101827>
- Hofmann, S. G., & Gomez, A. F. (2017). Mindfulness-based interventions for anxiety and depression. *The Psychiatric clinics of North America*, 40(4), 739–749. <https://doi.org/10.1016/j.psc.2017.08.008>
- Joling, K. J., O' Dwyer, S. T., Hertogh, C. M. P. M., & Van Hout, H. P. J. (2018). The occurrence and persistence of thoughts of suicide, self-harm and death in family caregivers of people with dementia: A longitudinal data analysis over 2 years. *International Journal of Geriatric Psychiatry*, 33(2), 263–270. <https://doi.org/10.1002/gps.4708>
- Kishita, N., Gould, R. L., Farquhar, M., Contreras, M., Van Hout, E., Losada, A., Cabrera, I., Hornberger, M., Richmond, E., & McCracken, L. M. (2021). Internet-delivered guided self-help acceptance and commitment therapy for family carers of people with dementia (iACT4CARERS): A feasibility study. *Aging & Mental Health*, 1–9. Advance online publication. <https://doi.org/10.1080/13607863.2021.1985966>
- Knott, D., & Block, S. (2020). Virtual music therapy: Developing new approaches to service delivery. *Music Therapy Perspectives*, 38(2), 151–156. <https://doi.org/10.1093/mtp/miaa017>
- Lee, S., Allison, T., O'Neill, D., Punch, P., Helitzer, E., & Moss, H. (2022). Integrative review of singing and music interventions for family carers of people living with dementia. *Health Promotion International*, 1–13. <https://doi.org/10.1093/heapro/daac024>
- Lightstone, Bailey, S. K., & Voros, P. (2015). Collaborative music therapy via remote video technology to reduce a veteran's symptoms of severe, chronic PTSD. *Arts & Health*, 7(2), 123–136. <https://doi.org/10.1080/17533015.2015.1019895>
- Liu, Z., Sun, Y.-Y., & Zhong, B.-L. (2018). Mindfulness-based stress reduction for family carers of people with dementia. *Cochrane Database of Systematic Reviews*, 8, CD012791–CD012791. <https://doi.org/10.1002/14651858.CD012791.pub2>
- Luberto, C. M., Hall, D. L., Park, E. R., Haramati, A., & Cotton, S. (2020). A perspective on the similarities and differences between mindfulness and relaxation. *Global Advances in Health and Medicine*, 9, 2164956120905597. <https://doi.org/10.1177/2164956120905597>
- McFerran, K., & Grocke, D. (2022). *Receptive music therapy: Techniques, clinical applications and new perspectives* (2nd ed.). Jessica Kingsley Publishers.
- O'Dwyer, S. T., Moyle, W., Zimmer-Gembeck, M., & De Leo, D. (2016). Suicidal ideation in family carers of people with dementia. *Aging & Mental Health*, 20(2), 222–230. <https://doi.org/10.1080/13607863.2015.1063109>
- Papastavrou, E., Kalokerinou, A., Papacostas, S. S., Tsangari, H., & Sourtzi, P. (2007). Caring for a relative with dementia: Family caregiver burden. *Journal of Advanced Nursing*, 58(5), 446–457. <https://doi.org/10.1111/j.1365-2648.2007.04250.x>
- Pietkiewicz, I., & Smith, J.A. (2014). A practical guide to using interpretative phenomenological analysis in qualitative research psychology. *Psychological Journal*, 20, 7–14.
- Rappaport, L. (2014). *Mindfulness and the arts therapies: Theory and practice*. Jessica Kingsley Publishers.
- Saldaña, J. (2011). *Fundamentals of qualitative research*. Oxford University Press.

- Smith. (2004). Reflecting on the development of interpretative phenomenological analysis and its contribution to qualitative research in psychology. *Qualitative Research in Psychology*, 1(1), 39–54. <https://doi.org/10.1191/1478088704qp004oa>
- Teahan, Á., Lafferty, A., Cullinan, J., Fealy, G., & O'Shea, E. (2021). An analysis of carer burden among family carers of people with and without dementia in Ireland. *International Psychogeriatrics*, 33(4), 347–358. <https://doi.org/10.1017/S1041610220000769>
- Takai, M., Takahashi, M., Iwamitsu, Y., Ando, N., Okazaki, S., Nakajima, K., Oishi, S., & Miyaoka, H. (2009). The experience of burnout among home caregivers of patients with dementia: Relations to depression and quality of life. *Archives of Gerontology and Geriatrics*, 49(1), e1–e5. <https://doi.org/10.1016/j.archger.2008.07.002>
- Tomaszewski, L. E., Zarestky, J., & Gonzalez, E. (2020). Planning qualitative research: Design and decision making for new researchers. *International Journal of Qualitative Methods*, 19. <https://doi.org/10.1177%2F1609406920967174>
- Van Dam, N. T., van Vugt, M. K., Vago, D. R., Schmalzl, L., Saron, C. D., Olendzki, A., Meissner, T., Lazar, S. W., Kerr, C. E., Gorchoff, J., Fox, K. C. R., Field, B. A., Britton, W. B., Brefczynski-Lewis, J. A., & Meyer, D. E. (2018). Mind the hype: A critical evaluation and prescriptive agenda for research on mindfulness and meditation. *Perspectives on Psychological Science*, 13(1), 36–61. <https://doi.org/10.1177/1745691617709589/>

Ελληνική περίληψη | Greek abstract

Διερευνώντας τα πιθανά οφέλη ενός διαδικτυακού προγράμματος διαλογισμού με βάση τη μουσική για τους οικογενειακούς φροντιστές ατόμων με άνοια

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ΠΕΡΙΛΗΨΗ

Η παρούσα μελέτη διερευνά τα πιθανά ψυχοκοινωνικά οφέλη ενός διαδικτυακού προγράμματος διαλογισμού βασισμένου στη μουσική για οικογενειακούς φροντιστές ανθρώπων με άνοια. Η υπάρχουσα βιβλιογραφία προσδιορίζει τα οφέλη της μουσικής και της ενσυνειδητότητας υπό ξεχωριστές ιδιότητες ως προς την προαγωγή της ευζωίας, της θετικής διάθεσης και της μείωσης της απομόνωσης για τους οικογενειακούς φροντιστές ανθρώπων με άνοια. Προς το παρόν, δεν υπάρχει βιβλιογραφία που να συνδυάζει το διαλογισμό και τη μουσική διαδικτυακά ειδικά για αυτή τη δημογραφική ομάδα. Δεκατρείς οικογενειακοί φροντιστές επιλέχθηκαν και συμμετείχαν στη μελέτη, παρακολουθώντας μια εβδομαδιαία συνεδρία διάρκειας 30 λεπτών επί τέσσερις εβδομάδες. Προσφέρονταν περαιτέρω μέσα διαλογισμού βασισμένα στη μουσική ώστε να είναι προσβάσιμα εκτός της παρέμβασης σε χρόνο που βόλευε τους συμμετέχοντες. Τα δεδομένα συλλέχθηκαν μέσω οκτώ εις βάθος ημι-δομημένων συνεντεύξεων που πραγματοποιήθηκαν μετά την παρέμβαση και αναλύθηκαν με τη χρήση της Ερμηνευτικής Φαινομενολογικής Ανάλυσης (ΕΦΑ). Υπήρξε συνολικά θετική ανταπόκριση από τους συμμετέχοντες καθώς η πλειοψηφία επεσήμανε ότι η συμμετοχή στο πρόγραμμα είχε θετικό αντίκτυπο στη διάθεσή τους, παρείχε την ευκαιρία να χαλαρώσουν και να ασκήσουν την αυτοφροντίδα τους, να επεξεργαστούν δύσκολα συναισθήματα, και να μειώσουν το αίσθημα της κοινωνικής απομόνωσης. Η διεξαγωγή του προγράμματος σε διαδικτυακή μορφή επέτρεψε στους συμμετέχοντες να έχουν πρόσβαση στο πρόγραμμα από την άνεση του περιβάλλοντος του σπιτιού τους και περιόρισε πιθανά εμπόδια όπως η οργάνωση της φροντίδας, η γεωγραφική τοποθεσία, τα προβλήματα κινητικότητας ή η πρόσβαση στα μέσα μεταφοράς. Τα ευρήματα αυτής της μελέτης μπορούν να χρησιμοποιηθούν ως βάση πάνω στην οποία μπορεί να διεξαχθεί περαιτέρω έρευνα σε αυτόν τον τομέα.

ΛΕΞΕΙΣ ΚΛΕΙΔΙΑ

μουσική, ενσυνειδητότητα, διαλογισμός, βασισμένος στη μουσική, οικογενειακοί φροντιστές, άνοια, διαδικτυακό, ψυχοκοινωνική στήριξη