

What is the evidence that music-based interventions make a difference to people living with dementia and how strong is this evidence?

Below is a snapshot of some of the most compelling studies that demonstrate the value and impact music can have. It is not an exhaustive review of all research available but highlights those that we consider offer interesting insights into the subject. They examine a range of musical interventions in day and residential care settings from music therapy to singing in a choir, playing a musical instrument to listening to music. Further research is ongoing.

These studies are also referenced in an infographic **Music for Dementia – the facts**

Please Note: Strength of evidence ranges from 4 stars for ‘strong’ to 1 star for ‘limited in scale & applicability’ (author’s assessment).

1 **Dementia: Treatment and Care** *Music therapy choir can improve quality of life and reduce depression*

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| SUMMARISED NAME OR DESCRIPTION OF STUDY: The use of music therapy choir to reduce depression and improve quality of life in older adults, RCT. | | HEADLINE: Residents in both residential and day care took part in a music therapy choir – mean quality of life score improved by 57%, – depressive symptoms were reduced by 54%. |
| DATE OF PUBLICATION: 2016 | STRENGTH OF EVIDENCE: ★★★ | |
| REFERENCE: Aheyy, B. (2016). The Use of a Music Therapy Choir to Reduce Depression and Improve Quality of Life in Older Adults – A Randomized Control Trial. <i>Music & Medicine</i> . 8. 17-28. | | |

2 **Dementia: Diagnosis** *Music-based interventions can help people with dementia come to terms with their diagnosis and condition*

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| SUMMARISED NAME OR DESCRIPTION OF STUDY: An evaluation of singing for the brain. | | HEADLINE: Study of 20 participants showed that attending Singing for the Brain helped in accepting and coping with dementia. |
| DATE OF PUBLICATION: 2016 | STRENGTH OF EVIDENCE: ★ | |
| REFERENCE: Osman, S. E., Tischler, V., & Schneider, J. (2016). ‘Singing for the Brain’: A qualitative study exploring the health and well-being benefits of singing for people with dementia and their carers. <i>Dementia</i> , 15(6), 1326–1339. | | |

3 **Music therapy shown to be the most cost effective method of dealing with agitation in care homes compared to some other interventions**

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| SUMMARISED NAME OR DESCRIPTION OF STUDY: A systematic review of the effectiveness & cost-effectiveness of sensory, psychological, and behavioural interventions for managing agitation in older adults with dementia. | | HEADLINE: Music therapy estimated cost per unit reduction on a specialist agitation index, is £4 – compared to say £24 to £143 for sensory interventions or £6 to £62 for training paid caregivers in person-centred care or communication skills. |
| DATE OF PUBLICATION: 2014 | STRENGTH OF EVIDENCE: ★★★ | |
| REFERENCE: Livingston G, Kelly L, Lewis-Holmes E, Baio G, Morris S, Patel N, et al. A systematic review of the effectiveness and cost-effectiveness of sensory, psychological and behavioural interventions for managing agitation in older adults with dementia. <i>Health Technology Assess</i> 2014;18(39). | | |

4 **Dementia: Treatment & Care** *MBIs improve general cognition & attention.*

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| SUMMARISED NAME OR DESCRIPTION OF STUDY: Playing a Musical Instrument as a Protective Factor against Dementia and Cognitive Impairment: A Population-Based Twin Study. | | HEADLINE: A study of 157 pairs of twins found that those who played a musical instrument in older adulthood were 36% less likely to develop dementia and cognitive impairment. |
| DATE OF PUBLICATION: 2014 | STRENGTH OF EVIDENCE: ★ | |
| REFERENCE: Balbag A, Pedersen N and Gatz M. Playing a Musical Instrument as a Protective Factor against Dementia and Cognitive Impairment: A Population-Based Twin Study. <i>International Journal of Alzheimer’s Disease</i> Volume 2014, Article ID 836748. | | |

5 Dementia: Treatment & Care MBIs improve general cognition & attention

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| SUMMARISED NAME OR DESCRIPTION OF STUDY: Cognitive, emotional, and social benefits of regular musical activities in early dementia: randomized controlled study. | | HEADLINE: Compared standard care to regular singing or music listening sessions over 10 weeks in 89 people with early dementia, music sessions improved general cognition (MMSE*** score), attention, and executive function compared to standard care. |
| DATE OF PUBLICATION: 2014 | STRENGTH OF EVIDENCE: ★ | |
| REFERENCE: Särkämö T, Tervaniemi M, Laitinen S, et al. Cognitive, emotional, and social benefits of regular musical activities in early dementia: randomized controlled study. <i>Gerontologist</i> . 2014;54(4):634-650. doi:10.1093/geront/gnt100. | | |

6 MBIs generate a social return on investment

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| SUMMARISED NAME OR DESCRIPTION OF STUDY: A forecast of Social Return on Investment of Silver Lining at The Sage Gateshead. | | HEADLINE: One project estimated that for every £1 invested there is a social value of £1.93 returned. |
| DATE OF PUBLICATION: 2012 | STRENGTH OF EVIDENCE: ★★ | |
| REFERENCE: Hegarty, S (2012) Adult and Community Learning Fund Forecast of Social Return on Investment of Silver Lining at The Sage Gateshead. | | |

7 Music is more effective intervention than other therapies

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| SUMMARISED NAME OR DESCRIPTION OF STUDY: Systematic review of systematic reviews of non-pharmacological interventions to treat behavioural disturbances in people with dementia. | | HEADLINE: Only Music Therapy and behavioural management techniques were shown to be significant in their effectiveness for reducing BPSD** compared to other interventions. |
| DATE OF PUBLICATION: 2007 | STRENGTH OF EVIDENCE: ★★★★★ | |
| REFERENCE: Abraha I, Rimland JM, Trotta FM et al. Systematic review of systematic reviews of non-pharmacological interventions to treat behavioural disturbances in older patients with dementia. The SENATOR-OnTop series. <i>BMJ Open</i> 2017;7:e012759. | | |

8 Dementia: Treatment and Care Music therapy can improve speech

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| SUMMARISED NAME OR DESCRIPTION OF STUDY: The impact of music therapy on language functioning in dementia. | | HEADLINE: Results from 20 participants revealed that music therapy significantly improved performance on both speech content and fluency, compared to a group involved in a conversational session. |
| DATE OF PUBLICATION: 2000 | STRENGTH OF EVIDENCE: ★ | |
| REFERENCE: Brottons M, Koger SM. The impact of music therapy on language functioning in dementia. <i>J Music Ther</i> . 2000;37(3):183-195. doi:10.1093/jmt/37.3.183. | | |

9 Dementia: Treatment and Care MBIs* improve autobiographical memory

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| SUMMARISED NAME OR DESCRIPTION OF STUDY: Effects of music on Alzheimer's patients. | | HEADLINE: Study showed improvements in autobiographical memory in a group of nursing home residents who regularly had music played to them. These improvements were not seen in the comparison group who were engaged in other activities. |
| DATE OF PUBLICATION: 1993 | STRENGTH OF EVIDENCE: ★★ | |
| REFERENCE: Lord TR, Garner JE. Effects of music on Alzheimer patients. <i>Percept Mot Skills</i> . 1993;76(2):451-455. doi:10.2466/pms.1993.76.2.451. | | |

*MBIs – music-based interventions.

**BPSD – behavioural and psychological symptoms in dementia.

***MMSE – mini mental state examination.