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## Music therapy for depression (Review)

Aalbers S, Fusar-Poli L, Freeman RE, Spreen M, Ket JCF, Vink AC, Maratos A, Crawford M, Chen XJ, Gold C

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[Intervention Review]

# Music therapy for depression

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## ABSTRACT

### Background

Depression is a highly prevalent mood disorder that is characterised by persistent low mood, diminished interest, and loss of pleasure. Music therapy may be helpful in modulating moods and emotions. An update of the 2008 Cochrane review was needed to improve knowledge on effects of music therapy for depression.

### Objectives

1. To assess effects of music therapy for depression in people of any age compared with treatment as usual (TAU) and psychological, pharmacological, and/or other therapies.
2. To compare effects of different forms of music therapy for people of any age with a diagnosis of depression.

### Search methods

We searched the following databases: the Cochrane Common Mental Disorders Controlled Trials Register (CCMD-CTR; from inception to 6 May 2016); the Cochrane Central Register of Controlled Trials (CENTRAL; to 17 June 2016); Thomson Reuters/Web of Science (to 21 June 2016); Ebsco/PsycInfo, the Cumulative Index to Nursing and Allied Health Literature (CINAHL), Embase, and PubMed (to 5 July 2016); the World Health Organization International Clinical Trials Registry Platform (WHO ICTRP), ClinicalTrials.gov, the National Guideline Clearing House, and OpenGrey (to 6 September 2016); and the Digital Access to Research Theses (DART)-Europe E-theses Portal, Open Access Theses and Dissertations, and ProQuest Dissertations and Theses Database (to 7 September 2016). We checked reference lists of retrieved articles and relevant systematic reviews and contacted trialists and subject experts for additional information when needed. We updated this search in August 2017 and placed potentially relevant studies in the "Awaiting classification" section; we will incorporate these into the next version of this review as appropriate.

### Selection criteria

All randomised controlled trials (RCTs) and controlled clinical trials (CCTs) comparing music therapy versus treatment as usual (TAU), psychological therapies, pharmacological therapies, other therapies, or different forms of music therapy for reducing depression.

## Data collection and analysis

Two review authors independently selected studies, assessed risk of bias, and extracted data from all included studies. We calculated standardised mean difference (SMD) for continuous data and odds ratio (OR) for dichotomous data with 95% confidence intervals (CIs). We assessed heterogeneity using the  $I^2$  statistic.

## Main results

We included in this review nine studies involving a total of 421 participants, 411 of whom were included in the meta-analysis examining short-term effects of music therapy for depression. Concerning primary outcomes, we found moderate-quality evidence of large effects favouring music therapy and TAU over TAU alone for both clinician-rated depressive symptoms (SMD -0.98, 95% CI -1.69 to -0.27, 3 RCTs, 1 CCT, n = 219) and patient-reported depressive symptoms (SMD -0.85, 95% CI -1.37 to -0.34, 3 RCTs, 1 CCT, n = 142). Music therapy was not associated with more or fewer adverse events than TAU. Regarding secondary outcomes, music therapy plus TAU was superior to TAU alone for anxiety and functioning. Music therapy and TAU was not more effective than TAU alone for improved quality of life (SMD 0.32, 95% CI -0.17 to 0.80, P = 0.20, n = 67, low-quality evidence). We found no significant discrepancies in the numbers of participants who left the study early (OR 0.49, 95% CI 0.14 to 1.70, P = 0.26, 5 RCTs, 1 CCT, n = 293, moderate-quality evidence). Findings of the present meta-analysis indicate that music therapy added to TAU provides short-term beneficial effects for people with depression if compared to TAU alone. Additionally, we are uncertain about the effects of music therapy versus psychological therapies on clinician-rated depression (SMD -0.78, 95% CI -2.36 to 0.81, 1 RCT, n = 11, very low-quality evidence), patient-reported depressive symptoms (SMD -1.28, 95% CI -3.75 to 1.02, 4 RCTs, n = 131, low-quality evidence), quality of life (SMD -1.31, 95% CI -0.36 to 2.99, 1 RCT, n = 11, very low-quality evidence), and leaving the study early (OR 0.17, 95% CI 0.02 to 1.49, 4 RCTs, n = 157, moderate-quality evidence). We found no eligible evidence addressing adverse events, functioning, and anxiety. We do not know whether one form of music therapy is better than another for clinician-rated depressive symptoms (SMD -0.52, 95% CI -1.87 to 0.83, 1 RCT, n = 9, very low-quality evidence), patient-reported depressive symptoms (SMD -0.01, 95% CI -1.33 to 1.30, 1 RCT, n = 9, very low-quality evidence), quality of life (SMD -0.24, 95% CI -1.57 to 1.08, 1 RCT, n = 9, very low-quality evidence), or leaving the study early (OR 0.27, 95% CI 0.01 to 8.46, 1 RCT, n = 10). We found no eligible evidence addressing adverse events, functioning, or anxiety.

## Authors' conclusions

Findings of the present meta-analysis indicate that music therapy provides short-term beneficial effects for people with depression. Music therapy added to treatment as usual (TAU) seems to improve depressive symptoms compared with TAU alone. Additionally, music therapy plus TAU is not associated with more or fewer adverse events than TAU alone. Music therapy also shows efficacy in decreasing anxiety levels and improving functioning of depressed individuals.

Future trials based on adequate design and larger samples of children and adolescents are needed to consolidate our findings. Researchers should consider investigating mechanisms of music therapy for depression. It is important to clearly describe music therapy, TAU, the comparator condition, and the profession of the person who delivers the intervention, for reproducibility and comparison purposes.

## PLAIN LANGUAGE SUMMARY

### Music therapy for depression

#### Why is this review important?

Depression is a common problem that causes changes in mood and loss of interest and pleasure. Music therapy, an intervention that involves regular meetings with a qualified music therapist, may help in improving mood through emotional expression. This review might add new information about effects of music therapy in depressed individuals.

#### Who will be interested in this review?

Our review will be of interest for the following people: people with depression and their families, friends, and carers; general practitioners, psychiatrists, psychologists, and other professionals working in mental health; music therapists working in mental health; and mental health policy makers.

#### What questions does this review aim to answer?

1. Is music therapy more effective than treatment as usual alone or psychological therapy?
2. Is any form of music therapy better than another form of music therapy?

#### Which studies were included in the review?

We included nine studies with a total of 421 people of any age group (from adolescents to older people). Studies compared effects of music therapy versus treatment as usual, and versus psychological therapy. Additionally, we examined the differences between two different forms of music therapy: active (where people sing or play music) and receptive (where people listen to music).

**What does evidence from the review tell us?**

We found that music therapy plus treatment as usual is more effective than treatment as usual alone. Music therapy seems to reduce depressive symptoms and anxiety and helps to improve functioning (e.g. maintaining involvement in job, activities, and relationships). We are not sure whether music therapy is better than psychological therapy. We do not know whether one form of music therapy is better than another. The small numbers of identified studies and participants make it hard to be confident about these comparisons.

**What should happen next?**

Music therapy for depression is likely to be effective for people in decreasing symptoms of depression and anxiety. Music therapy also helps people to function in their everyday life. However, our findings are not complete and need to be clarified through additional research. Future trials should study depression in children and adolescents, and future trial reports should thoroughly describe music therapy interventions, other interventions, and the person who delivers these interventions.