

Music therapy for autistic spectrum disorder

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Editorial group: [Cochrane Developmental, Psychosocial and Learning Problems Group](#).

Publication status and date: Edited (no change to conclusions), published in Issue 1, 2010.

Review content assessed as up-to-date: 28 January 2006.

Citation: Gold C, Wigram T, Elefant C. Music therapy for autistic spectrum disorder. *Cochrane Database of Systematic Reviews* 2006, Issue 2. Art. No.: CD004381. DOI: 10.1002/14651858.CD004381.pub2.

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Abstract

Background

The central impairments of people with autistic spectrum disorder (ASD) include social interaction and communication. Music therapy uses music and its elements to enable communication and expression, thus attempting to address some of the core problems of people with ASD.

Objectives

To review the effects of music therapy for individuals with autistic spectrum disorders.

Search strategy

The following databases were searched: CENTRAL, 2005, (Issue 3); Medline, (1966 to July 2004); Embase, (1980 to July 2004); LILACS, (1982 to July 2004); PsycINFO, (1872 to July 2004); CINAHL, (1982 to July 2004); ERIC, (1966 to July 2004); ASSIA, (1987 to July 2004); Sociofile, (1963 to July 2004); Dissertation Abstracts International, (late 1960's to July 2004). These searches were supplemented by searching specific sources for music therapy literature and manual searches of reference lists. Personal contacts to some investigators were made.

Selection criteria

All randomised controlled trials or controlled clinical trials comparing music therapy or music therapy added to standard care to "placebo" therapy, no treatment or standard care.

Data collection and analysis

Studies were independently selected, quality assessed and data extracted by two authors. Continuous outcomes were synthesised using a standardised mean difference (SMD) in

order to enable a meta-analysis combining different scales, and to facilitate the interpretation of effect sizes. Heterogeneity was assessed using the I^2 statistic.

Main results

Three small studies were included (total $n = 24$). These examined the short-term effect of brief music therapy interventions (daily sessions over one week) for autistic children. Music therapy was superior to "placebo" therapy with respect to verbal and gestural communicative skills (verbal: 2 RCTs, $n = 20$, SMD 0.36 CI 0.15 to 0.57; gestural: 2 RCTs, $n = 20$, SMD 0.50 CI 0.22 to 0.79). Effects on behavioural problems were not significant.

Authors' conclusions

The included studies were of limited applicability to clinical practice. However, the findings indicate that music therapy may help children with autistic spectrum disorder to improve their communicative skills. More research is needed to examine whether the effects of music therapy are enduring, and to investigate the effects of music therapy in typical clinical practice.

Plain language summary

Music therapy for people with autistic spectrum disorder

People with autism spectrum disorders (ASD) have difficulties with communication, behaviour and/or social interaction. Music therapy uses music and its elements to enable people to communicate and to express their feelings. In this way music therapy addresses some of the core problems of people with ASD. This review set out to assess the evidence for the effectiveness of music therapy for individuals with ASD.

Three small studies were included which examined the short-term effect of brief music therapy interventions for autistic children. Music therapy was superior to "placebo" therapy with respect to verbal and gestural communicative skills, but it was uncertain whether there was an effect on behavioural outcomes. The included studies were encouraging, but of limited applicability to clinical practice. More research with better design, using larger samples, in more typical clinical settings is needed to strengthen the clinical applicability of the results and to examine how enduring the effects of music therapy are. When applying the results of this review to practice, it is important to note that the application of music therapy requires specialised academic and clinical training.