Music Therapy and Autism

Ranking :

Type(s) : Standard

Status

There are three relevant systematic reviews of research studies (Whipple 2004; Ball 2004; and Gold, Wigram,and Elefant, 2006) that provide good evidence for the use of music therapy with individuals with autism but they also demonstrate some problems that need to be addressed.

The first two were conducted on a wide range of included studies, while the third, a Review for the Cochrane Library, applied more rigorous parameters. The first two reviews showed conflicting results. For example, there was little overlap between the reference lists of the two reviews, and only one study (Brownell, 2002) was included in both. The third study was conducted to overcome the shortcomings of these previous reviews.

Whipple 2004

The first review (Whipple, 2004) included experimental studies of any design which examined the effects of music (interventions ranged from music therapy to background music) versus no music on outcomes such as challenging behaviour and social interaction. Ten studies were included. Participants were individuals with autism ranging from 2.5 to 21 years. Sample sizes ranged from 1 to 20. Results showed a large, significant, and homogeneous overall effect size (d = 0.77), suggesting that conditions involving music were more effective than conditions without music. However, the interventions used in the included studies were so heterogeneous that it is difficult to draw specific conclusions on the effects of music therapy from this review. Furthermore, important design features of the primary studies used, such as randomisation and blinding, were not made transparent.

Ball 2004

The second systematic review (Ball, 2004) addressed the effects of music therapy versus no treatment on outcomes such as behaviour, communication, and social interaction in children with ASD. RCTs, controlled clinical trials (CCTs), and case series with at least 10 participants were included. Three studies were identified that met these criteria. Their results were summarised in a narrative way without meta-analytic pooling. Although all included studies had found significant effects, the authors concluded that the effects of music therapy were unclear.

Gold, C., Wigram, T., and Elefant, C. (2006).

The third, Cochrane review focused on RCTs and CCTs comparing music therapy (or music therapy added to standard care) compared to standard care, placebo or no treatment. Relevant studies were identified from the two previous reviews and through searching a number of relevant databases using a highly sensitive search strategy (full details in Gold & Wigram, 2003). In addition, relevant music therapy journals were searched by hand, and reference lists of identified studies were checked for any further studies. The identified studies were then inspected independently by both authors, and data on design type, population, music therapy, additional treatment, outcome assessment, and results were extracted.

From 311 identified records, 50 were identified as potentially relevant. Of these, three were excluded because they concerned other populations (related disorders or relatives of children with ASD). Six studies used other interventions than music therapy (background music, auditory integration training, or melodic intonation therapy). Thirteen further studies were excluded because they concerned an assessment rather than an intervention. Seven unpublished studies could not be obtained to date. Among the remaining studies which addressed music therapy as a treatment for children with ASD, there were eight case studies, eleven case series, and three RCTs with small sample size (Brownell, 2002; Buday, 1995; Farmer, 2003).

These RCTs used a dismantling approach to identify specific aspects of music as a medium for therapy. Such dismantling strategies usually require large samples, because both treatments contain active ingredients and therefore effect sizes are expected to be lower than when comparing an active treatment to no intervention or as an add-on to standard care. It is therefore quite impressive that some significant effects were found in these studies even with extremely small samples. The findings from these studies are important because they demonstrate the potential of the medium of music therapy for autistic children. However, the generalizability of these studies to clinical practice is limited. The treatment in all studies was highly structured and specifically targeted towards one behaviour, and only receptive music therapy techniques were used. The conclusion from this review was that music therapy may have positive effects on the communication behaviour of children with autism spectrum disorder.

Conclusion

Generally, the research that has been conducted on the effects of music therapy for ASD to date has largely the character of pilot studies. These studies have shown promising results and are a good starting point for more rigorous research. Larger RCTs examining interventions which are close to clinical practice are needed to confirm the positive results of the available pilot studies. Large RCTs are always expensive, and especially so when researching complex interventions for rare conditions. However, the results of previous research strongly suggest a need for such studies.

Music Therapy and Autism

You are currently viewing this item in Advanced level. Alternative information may be available in Intermediate or Basic.

To store this preference permanently register here

Ranking : 

Type(s) : Standard

Introduction

Music therapy uses live music making and composition techniques to encourage children, adolescents and adults with autism spectrum disorders to engage in spontaneous and creative musical activities.

The therapist and client use a variety of percussion or tuned instruments, or voice, to develop shared and interactive musical activities.

The individual with autism does not need musical skills to benefit from music therapy but the music therapist does need a high level of musical and therapeutic skill.

Supporters of music therapy believe that it can be used to develop social engagement, joint attention, communication abilities, while also addressing emotional needs and quality of life.

Last Updated : 07/10/2010