

Effects of music therapy on depression, anxiety, mental illness

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Abstract

This study aims to find out the success of group music therapy in improving depression and slowing the loss of cognitive abilities in dementia patients who are elderly. This paper also states how music therapy supports women in the treatment of postpartum depression. The healing power of music has been acknowledged in almost all traditions of music. The terms that indicate music therapy is very effective to control anxiety, depression, and mental health of a particular person. Music is also capable of activating specific neural networks through either music listening or active music-making, with distinct networks involved in different types of musical experiences. Based on the research, it is suggested that a framework for music therapy in mental healthcare that emphasises mental health recovery, good mental health, and the agency is preferable to one that primarily focuses on symptom remission and functional improvement. An overview of the elements influencing the outcomes of music-therapeutic practice is provided in this article. Results showed that music therapy, when added to standard care, has strong and significant effects on global state, general symptoms, negative symptoms, depression, anxiety, functioning, and musical engagement.

Key Words : Music therapy, mental health, depression, anxiety, negativesymptoms

Research Paper

Introduction

Music therapy is clinically using music led by a music therapist focusing on accomplishing personalised goals American Music Therapy Association 2018. Music is often used as a medium for people to regulate their emotions (Juslin 2019). It can lessen stress (De Witte Spruit Van Hooren Moonen Stams 2020) and evoke emotions (Koelsch 2015). When regulating emotions becomes difficult, it increases the risk of developing depression (Berking Wirtz Svaldi Hofmann 2014). Dealing and regulating unpleasant states of emotion becomes complex for people having symptoms of depression, (Herwig et al 2018) following a decrease in their positive affect (Joormann Stanton 2016). People suffering from depression, anxiety and schizophrenia might not be capable of recognizing their emotions

that are a part of their functioning in social settings. Hence people suffering from mental illnesses often face difficulties in socially interacting verbally and non-verbally and emotionally responsiveness (Mssler K Assmus j 2012). Irrespective of mental disorders being widespread, effective medical care is not consistently available for them, “failing to prioritise treatment and care of people with mental illness” Vigo et al 2016. Steel et al 2014 state that “substantial evidence indicates the majority of people with a mental disorder do not receive specialised services and that global resources allocated to the management of mental disorders is substantially lower than for other chronic health conditions”.

Several research papers and case studies have inferred that patients who prefer to back away from contact

and find difficulties with a verbal method of treatment in mental health care are encouraged to have music therapy (Gold et al 2013, Hannibal 2005, Meschede Bender Pfeiffer 1983, Metzner 2010, Mssler Assmus Heldal Fuchs gold 2012, Mssler et al 2011). Patients sometimes tend to face difficulties in verbal psychotherapy as it focuses on verbalising their mental states as they cannot mentalise. Music might help them to express themselves as a means of understanding and insight acting (Hegi-Portmann Lutz Hochreutener Rdisli-Voerkel 2006).

Music therapy is proven to be a favourable intervention for clients suffering from mental illness which helps them in improving their social functioning, global state and mental state (Grocke et al 2008). A systematic review of music therapy involving patients with schizophrenia or disorders similar to schizophrenia inferred that music therapy intervention with consistent care could enhance a patient's global state (Gold Heldal Dahle Wigram 2005). Another study inferred those techniques specific to music therapy like improvisations, and songs made substantial improvements in comparison to techniques like free play, and puppet play which is not specific to music therapy in children and adolescents (Goldwigram Voracek 2007). Music therapists have observed that clients afflicted with mental disorders might find difficulties expressing themselves verbally at the beginning; however, they will find it easier to reflect on their emotions through music as stated by Metzner 2010, Mssler et al 2011, Rolvsjord 2001, Solli 2008). Music often helps them relate cope and express their mental states that otherwise might not work with other forms of therapy (De Backer 2008, Metzner 1999, 2010). This paper intends to shed light on music therapy and how beneficial it can be for mental disorders and general mental health by summarising several case studies and finds of the authors.

Methods

Inclusion & Exclusion Criteria

To evaluate the current evidence for the effectiveness of Music Therapy, and other music- based interventions in selected fields of Mental illness. Studies included in this systematic review had to involve relevant titles and abstracts with keywords. The studies also had to have investigated the effects of music therapy on the behaviour of people with depression, anxiety, and mental wellness. The keywords are "Music therapy

effect on Social Anxiety, Depression Mental Health Music Based Intervention for Mental Health and Sound Therapy. In addition to articles deemed relevant from such search strategies, we also assessed relevant articles from reference lists of published work.

Data Extraction

Scopus, Google Scholar, Taylor, Springer, IEEE, and FRANCIS are the electronic databases from which the studies have been taken.

Data Collection & Analysis

Title and abstract screening were conducted in Covidence (a service dedicated to improving the production of systematic reviews so that health decision-making can draw on the best available evidence.) by our team. The full-text screening was conducted by the research team, with data extraction completed in a shared Google Sheets file. We collected them from the databases mentioned above and made them into two parts findings and flow charts. After this process, we came to a selected number of papers. In total, 108 studies were incorporated into the systematic literature review. 25 papers excluded for titles. 40 papers were excluded for Irrelevant abstract. 20 papers were excluded for non-availability of the full text. 20 papers are selected after the process. Then we put all the information together in alphabetical order. After this, we wrote all the findings of each paper.

Language

Included studies must be in English.

Publication

We included studies published in the duration (from 1st January 1975 to 18th January 2023).

Hypothesis

Music therapy was considered active if a music therapist was involved and music was used as a medium for interactive communication. Passive music therapy was defined as listening to music without the involvement of a music therapist. The study hypothesises that music therapy will not be less effective than verbal psychotherapy according to the principle of clinical equipoise and that we will see a decrease in PTSD symptoms and dissociation as well as an increase in well-being and improvement of safe attachment style after both music therapy and standard treatment. Furthermore, we hypothesise that

patient evaluation will be equally positive about both treatment conditions. According to salivary hormones, the hypotheses are that music therapy will be no less effective than verbal therapy regarding the increase of basic and session levels of oxytocin and decrease of basic and session levels of beta-endorphin.

Findings

It was observed that many of the papers fell under certain collective categories. The categories are as follows:

(a) Effect of music therapy on the brain of children:

When a child is interacting with music it involves neural networks that are supporting action or managing their emotions which can be beneficial for some diseases including depression, ambient music can activate a relief comeback and support emotional balance in both adults and children (Kaminski & Hall 1996, Hoffman 1997, Hayes et al. 2003).

A study which compared 145 young adults who were fans of heavy metal, rap and classical music resulted in no significant differences in depressive symptoms between fan groups. But the number of depressive symptoms experienced in every fan group was a remarkable predictor of negative emotional responses to their preferred music (e.g., sadness, tension, anger, and fear). In another experiment conducted where 9 of 11 students from a university showed strong improvements in depressive symptoms after EIMT (Emotion-regulating Improvisational Music Therapy) The effects of EIMT revealed a reduction in depression symptoms. After a four-week follow-up, this impact was still present. Overall, qualitative data confirmed these findings; all students reported feeling better, less depressed, less tense, and less or no longer nervous. According to researchers and mental health professionals the habit of listening to music and their preferences are important for young people's social and emotional well-being (F. Baker & Bor, 2008; McFerran, 2016; McFerran et al., 2016) and can help in neurological processes (Brancatisano et al., 2020). The probability is that music with aggressive themes may have a harmful effect on behaviour and mental health in teenagers and young adults. A desire for more types of rock music, such as heavy metal, punk, hard rock, and gothic, has also been connected to higher levels of anxiety, sadness, and problem behaviour, also the case of self-harm and lower levels of positive mood (Mulder et al., 2007; Stratton & Zalanowski, 1997; Ter Bogt et al., 2017).

(b) Effect of music therapy on adults:

Improvisatory music therapy was more successful than the standard of care for treating depression in adults (Erkkila et al., 2011 \$). In an experiment on SAD (social anxiety disorder) conducted by Rodwin, A. H., et al 2022 which consisted of 80 participants, aged 24 to 40 (M028.56, SD04.63), 48 men and 32 women with help of LSAS (Liebowitz Social Anxiety Scale). The SAD (social anxiety disorder) subject, would recognise fear and sorrow more accurately than happiness when compared to healthy controls. Participants with SAD who have been trained to perceive happiness will do so more accurately than participants with SAD who have not been trained, and they will not vary from HC. Simple main effect testing using the Bonferroni method revealed that trained SAD subjects significantly underperformed untrained SAD subjects in recognising fear.

In an electroencephalography (EEG) study, 20 people with no musical training listened to NICM ragas; they showed increased alpha, delta, and theta power in comparison to a resting condition with eyes closed. Prior research had connected the observed changes during music listening to extremely relaxed states, like meditative states (Hegde et al, 2012). It has been revealed that listening to specific ragas, for example, "Desi-Todi," for 30 minutes a day for 20 days possibly lowers systolic and diastolic blood pressure, lessens stress, anxiety, and sadness, and increases feelings of pleasure, a sensation of hope, and optimism. Females were substantially more likely than guys to experience changes in heart rate (Gupta & Gupta, 2016). Ragas is thought to offer therapeutic and developmental properties.

Women with PPD By paper provided by Patch, M. C., & Short, A. E. (2022) women who have been diagnosed with PPD have an advantage because music therapy where the participants reflected that their sessions were "very relaxing, soothing, calming, and peaceful". The results of the explored research highlight three factors that music therapists should consider when working within the context of perinatal mental health: (a) person- centred goals, (b) strengths over symptoms, and (c) accessibility to resources. However, further research needs to be conducted to accurately assess and conclude the benefits of music therapy within the area of perinatal mental health.

(c) Effect of music therapy on old people

According to other studies (Gu'etin et al., 2009; McKinney, Antoni, Kumar, Tims, & McCabe, 1997;

Ozdemir & Akdemir, 2009), music therapy beneficially lowers depression and anxiety in elderly people with dementia and prevents mental health. They found that music treatment possibly increased the social-emotional well-being of senior dementia patients (Cohen's $d = 1.02$, $p < .05$). After a 16-week meditation, Gu'etin et al. (2009) found that scores on the Geriatric Depression scale (GDS) for dementia patients in a music therapy group significantly fell from 16.7 to 8.9, and scores for those in the control group only decreased from 11.8 to 11.2. A GDS score of more than 11 may suggest depression. The profitable effects of music therapy on depression were experienced up to two months after the sessions stopped, as stated by Vink, Bruinsma, and Scholten (2011). According to the information discovered as the result of an inquiry of the current study, group music therapy helps reduce depression in dementia-afflicted elderly people who are regularised. A prior study by McKinney, Antoni, Kumar, Tims, and McCabe (1997) indicates that healthy persons with healthy cortisol levels and depression significantly lowered after a brief series of music therapy sessions.

Conclusion

Most systematic reviews that looked at the effects of music therapy on people's mental health concluded that music therapy has many positive benefits.

According to a study conducted by Jones and Helen Odell-Miller music therapy is potentially a beneficial treatment for young children with selective mutism. Premature infants benefit from music therapy, particularly in terms of their physiological and behavioural parameters, according to the findings. Based on McCaffrey et al. (2011)'s research, a systematic review of music therapy for patients with schizophrenia, PTSD, bipolar disorder, and depression found that the use of music therapy improves patients' mental health. A small number of studies that examined the effects of music therapy on reducing psychological stress during pregnancy have provided preliminary evidence that two weeks of music therapy during pregnancy provides quantifiable psychological benefits. Pregnant women can benefit from these findings by using this low-cost method of music to manage stress, anxiety, and depression. More research is needed to test the benefits over the long term. This SLR revealed several intriguing avenues for future research. To begin, high-quality trials assessing the effects of music therapy on depression are necessary. Nevertheless, it is necessary to conduct in-depth

research into traditional music from various cultures to ascertain whether it has any special therapeutic value.

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