

# Do Musical Interventions Reduce Negative Mood? A Review of the Recent Literature



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## BACKGROUND

Our review of the recent literature was undertaken to (a) confirm that current evidence supported the use of music interventions for the reduction of symptoms of mood disorders; (b) evaluate their effectiveness when used to improve negative mood states; (c) examine the characteristics of effective music interventions; and (d) suggest future directions for research examining music and mood.

### *Depression and Anxiety are Categorized as Mood Disorders.*

- People diagnosed with depression experience "low mood, low energy, poor concentration, loss of pleasure, poor self-care, and low self-esteem" (Chan, Wong, & Thayala, 2010, p. 727).
- People diagnosed with anxiety experience irrational levels of worry, concern, and, in response to uncertainty about impending threats, changes in behavior and affect (Grupe & Nitschke, 2013).
- People also experience 'garden-variety' negative moods in their lives. These moods may share characteristics with symptoms of mood disorders, but do so at levels that do not meet clinical criteria.

The fields of Clinical and Positive Psychology both pursue approaches that can be used to improve problematic moods including methods that employ music.

### *Music Therapy and Other Music Interventions*

Music interventions, including music therapy, are employed to relieve negative moods in general populations, and mood disorder symptoms in clinical populations. Music interventions include a variety of techniques, which we classified as either *passive*, such as listening to music (i.e., Goodling, 2008), or *active*, such as performing, composing, or improvising music (i.e., Gold, Solli, Krüger, & Lie, 2009).

## METHODS

We reviewed 45 articles published in peer reviewed journals between 2002 and 2014. Five were published between 2002 and 2007; 15 were published between 2008 and 2010; and the remaining 25 were published in or after 2011. Of these 45 articles, 23 (51%) were primary sources reporting empirical research.

Using NVivo, a Computer Assisted Qualitative Data Analysis Software (CAQDAS) package, we coded the studies as follows:

1. **Population type:** samples were drawn from (A) clinical groups diagnosed with (a) depression; (b) anxiety; and (c) mood disorders (combined data for depression and anxiety); (B) non clinical groups (no diagnosis); and (C) general populations (unidentified).
2. **Music intervention type:** we labeled (a) music listening as passive and (b) performing, composing, or improvising music as active interventions.

We synthesized the recent literature and here present what we learned about the relationships between music interventions and mood enhancement.

## REFERENCES

(See handout)

## Music and Mood Disorders

Our review of the recent literature confirms music interventions are effective for treating anxiety and depression:

### *Passive Techniques*

- Music listening techniques were employed in 12 of the 23 recent empirical studies. It was found to decrease levels of anxiety (i.e., Hwang, 2013) and depression (i.e., Chan et al, 2010; Hwang, 2013). Although music listening is the most common form of musical intervention for depression, Chan et al. suggested that this may be due to an absence of personnel trained in other music therapy techniques. As one might expect, multiple sessions of music listening are more effective at reducing symptoms of depression than are single sessions (Chan, Wong, & Thayala, 2011). Music listening is the most commonly used music intervention technique for depression (Chan et al., 2010).

### *Active Techniques*

- Singing and playing instruments decreased levels of anxiety and depression (i.e., Albornoz, 2011; Hwang, 2013). Song writing and improvisational music therapy can also help reduce levels of depression (Albornoz, 2011). However, which particular active technique is employed may not matter: Hwang (2013) found these techniques were all comparable in reducing symptoms of anxiety and depression.

### *Combined Techniques*

- Medication and psychoeducational techniques are commonly used to treat the symptoms of mood disorders (i.e., Chan et al., 2011); however music therapy can also reduce these symptoms (i.e., Erkkilä et al., 2011).
- Medication is the most common treatment for mood disorders, but can have undesirable side effects (i.e., Chan et al., 2011). Depression has been found to be reduced to a greater extent when medication is combined with music therapy than when it is used alone (Chan et al., 2011). There is however insufficient research to determine the effectiveness of adding music therapy to psychoeducational techniques (i.e., teaching patients about their disorder). Interpreting findings that did not rise to significance, but indicated a non-significant trend ( $p = .330$ ), Silverman (2012) suggested that future research may reveal that in combination with psychoeducational techniques, may be more helpful for relieving symptoms of depression than is psychoeducation alone.

## Music and Negative Mood

For individuals without clinical diagnoses, negative mood can also be lessened using music interventions (i.e., Hwang, 2013).

### *Passive Techniques*

- Music listening has been found to reduce stress and increase relaxation, which in turn, can decrease anxiety, according to Hwang (2013). The tonal key of the music, however, has been found to effect mood. Listening to a musical piece in a major key can improve mood; whereas listening to the same musical piece transposed to a minor key can worsen mood, according to Noonan (2011).

### *Active Techniques*

- Both singing and songwriting have been found to be helpful in reducing both anxiety- and depression-like symptoms (Hwang, 2013). However, negative mood states have been induced when participants write songs that recall painful experiences (Baker, 2013).

### *Combined Techniques*

- When paired with standard care (medication, counselling), music has been shown to reduce both anxiety- and depression-like symptoms (Gold, 2009). Employing multiple musical intervention techniques has been found to both reduced participants' negative mood and increased their willingness to express positive feelings (Hwang, 2013).

## DISCUSSION

In general, our review of the recent literature indicates both passive and active music interventions are effective techniques to improve mood and reduce symptoms of depression and anxiety. However, specific music interventions revealed that there are circumstances in which music interventions can be problematic, such as when listening to music in a minor key or writing songs recalling negative experiences. We also found that, in general, both passive and active techniques are effective--perhaps equally so--though that is a question for future research.

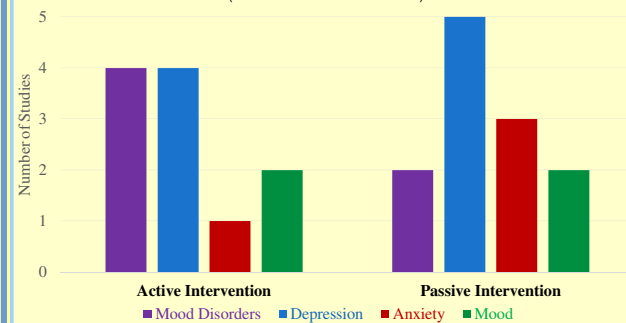
Combining music interventions with traditional therapeutic approaches *might* enhance treatment outcomes. Music interventions have been found helpful for treating depression when used in combination with medication; however, currently there is insufficient research to determine the effectiveness of the combining music therapy with (a) medication for treating anxiety; with (b) psychoeducation; or with (c) other traditional therapies (i.e., Cognitive Behavioral Therapy).

For the most part, we have successfully confirmed that current evidence supports the effectiveness of music interventions for the treatment of mood disorders, as well as helping with 'garden-variety' negative mood. Additional research and replication of existing studies is needed to further our understanding of the relationship between music and mood.

Future research should also further examine the characteristics of musical intervention techniques in relation to their treatment benefits. In particular, a meta-analysis could help determine whether active versus passive musical interventions are more effective for particular groups or individuals.

## Music & Mood

(Incidence in Recent Studies)



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