Review: music as a single session intervention reduces anxiety and respiratory rate in patients admitted to hospital


**QUESTION:** In adult patients admitted to hospital, does listening to music reduce the perception and physiological consequences of pain and anxiety, minimise the effect of unpleasant procedures and situations, and increase satisfaction with care?

**Data sources**
Studies were identified by searching Medline, CINAHL, Current Contents, EMBASE/Excerpta Medica, Cochrane Library, Dissertation Abstracts, PsyCIT, Proceedings, HealthStar, Austhealth, and Expanded Academic Index; handsearching 4 journals that focus on music and health care; and reviewing the reference lists of retrieved articles.

**Study selection**
Studies were selected if they were randomised controlled trials evaluating the effectiveness of recorded music compared with a control intervention in adult patients in a hospital setting. At least 1 of the following outcomes had to be reported: anxiety, pain, satisfaction, vital signs, analgesic use, sedation use, tolerance, mood, or length of stay. Studies with poor methodologies were excluded.

**Main results**
19 studies met the selection criteria. 12 studies evaluated the effect of music on anxiety, 6 of which involved patients admitted to hospital. Combining the results from these 6 studies showed that music reduced anxiety (standardised mean difference [SMD] -0.71, 95% CI -0.97 to -0.46). The other 6 trials evaluated music in patients having a procedure, 2 of which could be combined. Combining these 2 studies showed that music did not reduce anxiety (SMD 0.06, CI -0.33 to 0.44). Based on the findings of 2 trials that could not be combined, music did not reduce anxiety in patients having invasive or unpleasant procedures.

5 studies evaluated the effect of music on respiratory rate. Combining the results of 3 of these studies showed a reduction in respiratory rate with music in patients admitted to hospital (weighted mean difference [WMD] -2.42, CI -3.95 to -0.88). 1 study found no difference between treatment and control groups for those having a procedure.

11 studies evaluated the effect of music on heart rate, 8 evaluated the effect of music on systolic blood pressure, and 2 evaluated the effect of music on the perception of pain. No differences existed between the treatment groups for either patients admitted to hospital or those having a procedure.

2 studies evaluated the effect of music on sedation and showed that music may decrease the need for or the amount of sedatives. 1 study found no difference in patient tolerance of having a procedure between those in the music and control groups. 1 study found that music increased patient satisfaction, but another found no difference in satisfaction between the treatment groups. 2 studies found that music led to an improvement in patient mood. 1 study found no difference between treatment groups in the duration of hospital stay.

**Conclusion**
Music as a single session intervention reduces anxiety and respiratory rate in patients admitted to hospital.
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