

 **Use of binaural beat tapes for treatment of anxiety:
a pilot study of tape preference and outcomes.**

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CONTEXT: Recent studies and anecdotal reports suggest that binaural auditory beats can affect mood, performance on vigilance tasks, and anxiety.

OBJECTIVE: To determine whether mildly anxious people would report decreased anxiety after listening daily for 1 month to tapes imbedded with tones that create binaural beats, and whether they would show a definite tape preference among 3 tapes.

DESIGN: A 1-group pre-posttest pilot study.

SETTING: Patients' homes.

PARTICIPANTS: A volunteer sample of 15 mildly anxious patients seen in the Clinique Psyché, Montreal, Quebec.

INTERVENTION: Participants were asked to listen at least 5 times weekly for 4 weeks to 1 or more of 3 music tapes containing tones that produce binaural beats in the electroencephalogram delta/theta frequency range. Participants also were asked to record tape usage, tape preference, and anxiety ratings in a journal before and after listening to the tape or tapes.

MAIN OUTCOME MEASURES: Anxiety ratings before and after tape listening, pre- and post-study State-Trait Anxiety Inventory scores, and tape preferences documented in daily journals.

RESULTS: Listening to the binaural beat tapes resulted in a significant reduction in the anxiety score reported daily in patients' diaries. The number of times participants listened to the tapes in 4 weeks ranged from 10 to 17 (an average of 1.4 to 2.4 times per week) for approximately 30 minutes per session. End-of-study tape preferences indicated that slightly more participants preferred tape B, with its pronounced and extended patterns of binaural beats, over tapes A and C. Changes in pre- and posttest listening State-Trait Anxiety Inventory scores trended toward a reduction of anxiety, but these differences were not statistically significant.

CONCLUSIONS: Listening to binaural beat tapes in the delta/theta electroencephalogram range may be beneficial in reducing mild anxiety. Future studies should account for music preference among participants and include age as a factor in outcomes, incentives to foster tape listening, and a physiologic measure of anxiety reduction. A controlled trial that includes binaural beat tapes as an adjunctive treatment to conventional therapy for mild anxiety may be warranted.