

The effect of music on anxiety level of patients and some of physiological responses before abdominal surgery

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Abstract

Background&Objective: Surgery is an important stressor which makes some harmful physiological reactions such as high blood pressure, tachycardia, and respiratory distress. The aim of this study was to investigate the effects of music on the anxiety and some of physiological responses of patients before abdominal surgery, as assessed by objective parameters and a subjective validated questionnaire.

Materials&Methods: This study is a semi-experimental study. Total of 134 subjects was randomly assigned to undergo either 20 minutes of music intervention or a rest period. The level of anxiety was measured using Spilberger questionnaire and physiological responses, arterial blood pressure, heart rate and respiratory rate. Subjects in intervention group listened to 20 minutes music by Johann Sebastian Bach. The control group listened to no music. The anxiety level and physiological responses were measured before and after intervention.

Results: There was no significant difference between the anxiety level and physiological responses in two groups of subjects before intervention. The findings indicate a significant statistical difference in the level of anxiety and mean of arterial blood pressure in the intervention group ($P<0.05$). There was no significant difference in heart and respiratory rate in two groups of subjects.

Conclusion: As indicated by the results of this study, music can provide an effective method of reducing potentially harmful physiological responses arising from abdominal surgery, therefore it is suggested to use it before surgery.

Key Words: Anxiety- Physiological variable (or responses)- Music- Vital sign- Abdominal surgery