



▼ POST GRADUATES ABSTRACTS

PG -09 : EFFECT OF MUSIC LISTENING ON ANXIETY LEVELS OF PATIENTS UNDERGOING DERMATO-SURGERY UNDER LOCAL ANAESTHESIA- PROSPECTIVE RANDOMISED CONTROL TRIAL

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Background: Advances in the field of dermatology have led dermatologists perform office surgery procedures almost every day. Anxiety that accompanies minor procedures may be relieved by introducing music intervention with no risk or side-effect. Music is a simple, inexpensive, safe and effective adjunct to office surgery which promotes psychological and physiological health.

Objectives: This study aims to explore the effect of music listening on state anxiety and physiological parameters in patients undergoing dermato-surgery under local anesthesia.

Methods: Study design - Hospital-based randomised control trial, Setting- Department of Dermatology, Venereology and Leprology (DVL) in collaboration with the Department of Psychiatry and Center for Music Therapy Education and Research (CMTER) in a tertiary care centre in, Puducherry) Subjects- Male and Female patients aged 12 years and above undergoing invasive dermato-surgery procedure (IDL) under local anesthesia (LA) were taken up for this study.

Procedure - All consecutive patients posted for dermato-surgery procedures like Electro Cautery, Intralesional steroid injection, Skin Biopsy and various other procedures done under local anesthesia, in a DVL OPD were approached for the study. After obtaining a written informed consent/ assent from the participants they were randomly divided into two groups- experimental (music listening group) and control (non-music listening group). The experimental group listened to music during the dermato-surgery procedure while the control group did not. Subjects in the experimental group were rated using Interest

In Music scale (IIM). Anxiety was assessed at baseline, 10 minutes after the start of procedure and 20 minutes post procedure in both the groups using a single item Likert scale. Blood pressure, heart rate and respiratory rate were also assessed at these three points of time in both the groups.

Results: Out of the total of 150 patients, 75 were in the experimental (music listening group) and 75 were in the control (non-music listening group). The age of study participants ranged from 15 to 70 years. The mean age of total sample was 36.8 ± 13.2 years. Mean age was 35.1 ± 13.4 years and 38.7 ± 12.9 years in experimental and control group respectively. There were 42 men and 33 women in the experimental group and 40 men and 35 women in the control group. The gender distribution in the experimental and control group did not vary significantly ($p=0.87$) Majority of the participants in experimental group 62(82.6%) preferred Tamil film music. The mean duration of music listening was 41.73 ± 5.89 minutes. The mean anxiety scores showed a trend to decrease from baseline to 20 minutes within the two groups. Post hoc analysis revealed that the difference in anxiety from baseline to 10 minutes; 10 minutes to 20 minutes and baseline to 20 minutes were statistically significant in both experimental and control groups ($p=0.000$) Anxiety levels at baseline between both the groups were significantly different with the control group having higher anxiety score. But anxiety at 10th minute after the start of procedure and 20th minute post procedure did not show any statistical significance between the two groups. In both the groups, SBP, DBP, HR and RR all showed a trend to increase at 10th minute of start of procedure and then decreased when measured at 20 minutes post procedure but statistically significant difference was present only

in SBP and HR in music listening group; and SBP and RR in non- music listening group. Comparison of systolic blood pressure, heart rate and respiratory rate between the two groups showed a statistically significant difference at baseline. But no statistical difference was observed at 10th minute of start of procedure and 20 minutes post procedure between the two groups. There was no statistically significant difference in diastolic blood pressure at all the three point of time between experimental and control group. There was a negative correlation found between anxiety and scores of interest in music domains (music activity & emotional engagement with music and Social avoidance through music) during music listening, suggesting that higher interest in music lowers anxiety.

Conclusion : The results of this study indicated that though there was no statistically significant difference of anxiety levels between the two groups, there was a positive trend towards reduction in anxiety levels within the two groups from baseline to 20 minutes post procedure which was statistically significant. Hence we conclude that music listening may not have contributed to significant reduction in anxiety levels because of short duration of dermato-surgery procedure and music listening. We feel that future studies should be taken up after addressing the limitations of the study to understand the relationship between music listening and anxiety levels in subjects undergoing similar procedures.