Music Listening as a Postanesthesia Care Unit (PACU) Nursing Intervention for Laparoscopic Radical Prostatectomy Patients: A Mixed Method Randomized Comparative Clinical Trial

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Introduction/Background

Patients undergoing major cancer surgery frequently experience increased anxiety about how severe their pain will be and what will be their oncology surgical outcomes. Laparoscopic radical prostatectomy surgery patients have reported severe pain postoperatively and experienced psychological distress for potential urinary incontinence and sexual dysfunction. Over this past year, pain management was also identified as the primary cause of patients’ increased length of stay in post anesthesia care unit (PACU). The PACU staff conducted a music listening evidence-based practice (EBP) project that recommended investigating complementary music listening methods.

Null Hypothesis: There will be no difference in reported anxiety scores and pain scores between intervention groups

Methodology

Prospective randomized comparative mixed method study of two non-pharmacologic nursing music listening intervention groups explored effects of music on anxiety and pain management from 2019 to 2020. Group I received patient-preferred music selection via Spotify consisting of assortment of artists. Group II was coded as BAB devices—set to JHH Playlist with one instrumental minimalist track choices from a search or featured album.

Outcome Measures/Results

Procedure/Description of Data Collection

Figure 3: Comparison of S anxiety scores by group and visits

Figure 2: Comparison of PACU pain score by group and visits

Procedure:: PACU co-investigators, using a preapproved research recruitment script, called the patients the day prior to their scheduled surgery to invite them to participate in the music listening study. The patients completed Spielberger STAI-Y questionnaire in waiting room.

Interventional Music Listening Devices

Apple iPod Touch 32 GB devices were pre-programmed by the hospital IT Department staff to automatically log in to each email account and were set to the following:

Group I was coded as ABA devices—set to Spotify Home screen to play patient’s preferred music automatically log in to each email account and were set to the following:

Group II was coded as BAB devices—set to JHH Playlist with one instrumental minimalist track downloaded on a loop playback.

Outcome Measures/Results

Quantitative Results

Table 1

Qualitative Inquiry Results

Table 2

Acknowledgements – Johns Hopkins’ Weinberg Prep PACU Staff

Discussion

Pain medication use did not differ between the two groups. Notably, three study participants did not require any pain medication throughout their entire PACU stay. Both interventions reduced STAI scores and pain scores to a similar degree; this reduction was clinically and statistically significant. These interventions should be important complementary techniques for all surgical patients, especially in a busy, fast-paced perianesthesia clinical setting.

Limitations

Single-center study limits generalization; Listening duration difference between 2 groups limits comparability of intervention; Study only included men and not generalizable to women.

Conclusion

Listening to music is relatively easy to use in many different patient settings. Our findings suggest that music listening is safe, inexpensive, and effective intervention in postop setting. When comparing the cost of the two music listening interventions, the relaxation breathing exercises that were pre-recorded over minimalist hypnotic music were a one-time cost and proved to be less costly than the Spotify subscription of $15.00 per month or $180.00 annually.

Implications for Practice

References