

The effect of progressive muscle relaxation on sleep quality and postoperative pain in patients undergoing heart valve replacement surgery

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Abstract

The abstract appears before the keywords. Abstract must be about 200 words. However, it must be limited between 150 to 200 words. The abstract should clearly state, the objective, results and the conclusion of the work.

Background and aims: To investigate the effect of progressive muscle relaxation on sleep quality and postoperative pain in patients undergoing heart valve replacement surgery. **Methods:** In this quasi-experimental study, 80 patients undergoing surgery that enter were randomly divided into the muscle relaxation (n=40) or control group (n=40). Data were collected by Pittsburgh Sleep Quality Index and McGill Pain Questionnaire before and after the intervention. Patients in the control group received routine care, but patients in the muscle relaxation group performed a progressive relaxation technique twice a week for one month. **Results:** Most of the male participants in both groups had diplomas. There is no significant difference between the two groups of relaxation and control regarding age, gender, occupation, and education levels. The mean sleep quality score in the control group was not significantly reduced after the intervention. However, the mean sleep quality in the relaxation group before 12.90 ± 1.23 and after the intervention was 7.03 ± 3.01 significantly decreased ($P < 0.002$). Also, the pain score was significantly reduced after the progressive relaxation group in the intervention group ($P < 0.001$). Although the two groups were the same in all the dimensions of sleep quality before the intervention, significant differences were observed between groups after the intervention in all the dimensions.

Conclusion: Progressive muscle relaxation has an influential role in the pain decrease and sleep quality of patients undergoing heart valve replacement surgery and can be used as a safe and cost-free method for patients.

Keywords : Pain, Sleep quality, Progressive muscle relaxation, Valve replacement