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**EFFECTIVENESS OF RELAXATION TECHNIQUE UPON CHEST PAIN DURING  
CHEST TUBE REMOVAL FOR POST OPEN HEART SURGERY PATIENTS AT  
CARDIAC CENTERS IN BAGHDAD HOSPITALS.**

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**Abstract**

**Background:** After open heart surgery, patients will experience pain at the surgery site that pain is due to sternotomy and placing a chest tube, chest tube pain has been described as one of the worst experiences by patients in the intensive care unit, Relaxation can be used as a non-pharmacological method for pain management and reduce pain.

**Methodology:** A quasi-experimental design was carried out in the intensive care units for cardiac surgery, in Al Shahid Gazi Al Hariri Hospital (the Iraqi center of heart disease), and Ibn AL Bitar hospital) for the period from the 17<sup>th</sup> of February 2014 to 10 September 2015. A non –probability (purposive) sample was selected and composed of (60) adult patients who undergoing open heart surgery. The sample divided into (30) patients within the study group who received the relaxation technique (relaxation exercise and foot reflexology) and (30) patients within the control group not exposed to the relaxation program. The relaxation technique includes (relaxation exercise used progressive muscle relaxation and foot reflexology) has been developed by the researcher, the relaxation exercise, giving at least (1-2) days before the cardiac surgery, the foot massage doing for 15 minutes before chest removal procedure. To evaluate effectiveness of relaxation technique physically through measuring the intensity of pain before and after chest tube removal procedure by visual analogue scale (VAS), the oxygen saturation, pulse rate and blood pressure. The psychological status was by measuring state anxiety) before and after the chest tube removal procedure. Data have been analyzed by using descriptive and inferential statistics, the researcher used the SPSS version 21 for analysis of data.

**Results:** The results of the study have been analyzed with regards to the physical status (measurement of the pain intensity) there is a high significant difference between the study group and the control group; In addition, the study has revealed statistical significance between the study and control groups when measuring the pulse rate and oxygen saturation and blood pressure. As for the psychological status (anxiety state), present no significant differences between the study and the control groups during the pre-test; but there are highly statistical significances between each group during the post – test.

**Conclusion:** The study concluded that there was a positive effect of relaxation technique implemented on patients' physical and psychological status in patients undergoing chest tube removal after open heart surgery at cardiac centers in Baghdad Hospitals.

**Recommendation:** it was recommended to use a relaxation technique during chest tube removal, the study also recommended that the nurses, staff can be encouraged and motivated for participated in the special training, of relaxation techniques.

**Keywords:** Relaxation techniques, Chest pain, Chest tube, Open Heart Surgery.

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