

EFFECT OF COMBINATION OF ACAPELLA DEVICE AND BREATHING EXERCISES ON TREATMENT OF PULMONARY COMPLICATIONS AFTER UPPER ABDOMINAL SURGERIES

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Abstract

The purpose: This study was conducted to investigate the effect of combination of Acapella device and breathing exercises on treatment of pulmonary complications after upper abdominal surgeries. Sixty patients (29 males and 31 females) underwent upper abdominal surgery with ages ranged from 20-50 years were selected randomly and divided into two equal groups in number each group contains 30 patients. Patients in **group (A)**: received breathing exercises, Acapella device and traditional chest physical therapy program while patients in **group (B)**: received only traditional chest physical therapy program. Patients in both groups were assessed before treatment (pre-training) then after treatment (post-training) to measure pulmonary function (forced vital capacity [FVC] and forced expiratory volume in the first second [FEV1]) using spirometer.

Results: The results of this study showed that combination of breathing exercises and Acapella device were effective in treatment of post operative pulmonary complications through significant increase in FVC and FEV1. **Conclusion:** It was concluded that combination of breathing exercises and Acapella device were effective in treatment of post operative pulmonary complications after upper abdominal surgeries.

Key Words: (Acapella device, Breathing exercises, Pulmonary complications, Spirometer, Upper abdominal surgeries).