



## 6. RESPIRATORY BIOFEEDBACK FOR ANXIETY REDUCTION THROUGH VISUALIZATION OF THE CHEST MOVEMENTS

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**Introduction.** Anxiety causes significant distress to patients and remains one of the most common complaints in primary healthcare. Family physicians often find themselves seeking the most effective treatment for patients, including free methods like biofeedback. Biofeedback is a therapeutic tool to facilitate the self-regulation of autonomous functions for health improvement. The respiratory biofeedback method is based on voluntary controlled respiratory movements in the form of a special breathing pattern.

**Aim of study.** This study aims to assess the efficiency of respiratory biofeedback, performed through slow abdominal breathing, with visual control of respiratory movements, on the anxiety.

**Methods and materials.** This study was conducted on a sample of 25 volunteers, students at *Nicolae Testemitanu* State University of Medicine and Pharmacy, 19 to 24 years old, mean age  $21.9 \pm 1.1$  years. Initially, a psychophysiological assessment of the study participants was conducted using State and Trait Anxiety Inventory Spielberger (STAI). The respiratory training for reduction of anxiety involved using abdominal breathing at a frequency of 6 breaths per minute. The onset of respiratory cycle phases (inspiration/expiration) was signaled by the metronome sound, strictly maintaining the ratio between the duration of inspiration and expiration at 5 seconds to 5 seconds. Thus, participants limited the amplitude of chest movements and increased the amplitude of abdominal movements, using instant visual feedback provided by the VISURESP application.

**Results.** The selected sample followed this special program for 14 days, with daily sessions lasting 15 minutes each. The results obtained in this study show that the majority of participants experienced a reduction in anxiety. A very significant decrease ( $p < 0.01$ ) in the trait score was recorded in 41.65% of subjects, a significant decrease ( $p < 0.05$ ) in 33.32% of subjects, and only 3 subjects did not show improvement in anxiety.

**Conclusion.** The visualization of the chest and abdominal movements during respiratory training helps ensure the correct execution of abdominal breathing. The outcome of this study supports the method of respiratory biofeedback as a complementary treatment for various anxiety disorders.