Effects of neurofeedback training on anxiety symptoms among university students

ABSTRACT

Previous studies reported that university students are a population at risk of that mental health problems. The most common intervention for anxiety disorders are pharmacological and/or nonpharmacological strategies such as psychotherapies. Besides that, there is a growing interest neurofeedback training for various mental health conditions including depression, Post Traumatic Stress Disorder (PTSD), stress and anxiety. Therefore, the objective of this study is to determine the effectiveness of neurofeedback training in reducing symptoms of anxiety. A quasi-experimental study with a pretest-posttest design was employed in this study. Thirty eight students (M= 22.47 years, SD= .69 years) with moderate and severe anxiety symptoms based on the Beck Anxiety Inventory (BAI) and Generalized Anxiety Disorder-7 (GAD-7) were randomly assigned to either neurofeedback training or waiting list. The neurofeedback group undergone a total of 20 neurofeedback training (3 sessions per week). The post test results indicated that neurofeedback training significantly reduce symptoms of anxiety in the neurofeedback group than those of in the waiting list group in both BAI and the GAD-7 instruments with effect size ranged from .49 to .62. Wilcoxon signed–rank test was conducted to assess the statistical differences between the pre-scores and post-scores of BAI and GAD-7 measurements within the NFT group. Significant differences within the NFT group was found between the pre-test and post-test scores in the BAI and GAD-7 measurements. In general, the current study suggest that neurofeedback was an effective treatment for anxiety symptoms among university students.