

Effectiveness of Jacobson's Muscle Relaxation Technique and Deep Breathing Exercise on Stress among Physiotherapy Final Year Students

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Abstract

Introduction: Stress is a common response to demanding situations, significantly impacting mental and physical health if not properly managed. Jacobson's Muscle Relaxation Technique (JMRT) is a type of therapy that focuses on tightening and relaxing specific muscle groups in sequence. Deep breathing exercises involve slow, deep inhalations and exhalations to promote relaxation and reduce stress. Depression Anxiety Stress Scales (DASS-21) is a 21-item questionnaire assessing depression, anxiety, and stress symptoms used for psychological evaluation and research.

Methods: This study is an Experimental design where the two interventional techniques were applied in a single group. A Total of 30 subjects were obtained for this study. The comparative analysis of the Pre-test and Post-test interventions was based on the DASS21 Scale.

Results: The pre-test DASS-21 scores averaged 25.55 with a standard deviation of 6.23, indicating a high-stress level among the students. After the intervention, post-test scores significantly decreased to an average of 13.77, with a standard deviation 3.10. This substantial reduction in stress levels was statistically validated, with a t-value of 12.19 and a significance level of $P \leq 0.001$, demonstrating an extremely significant difference between pre-test and post-test scores.

Conclusion: This study indicates that JMRT and deep breathing exercises effectively reduce stress among final-year physiotherapy students, as evidenced by the significant decrease in DASS-21 scores post-intervention.