



Effect of conventional physical therapy with or without diaphragm manual therapy in patients with chronic non-specific low back pain

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Abstract

Aims and Objectives: To determine the effect of conventional physical therapy with or without diaphragm manual therapy in patients with chronic non-specific low back pain.

Material and Methods: A randomized, single-blind clinical study will be performed. A sample size of 34 patients comprising of only male gender will be taken from various clinical settings of Faisalabad. Non-probability purposive sampling technique will be used. Patients will be randomly allocated into two groups. Treatment Group A will perform Conventional Physical Therapy and Diaphragm Manual Therapy and Group B will perform Conventional Physical Therapy and Sham Diaphragm Manual Therapy. Numerical Pain Rating Scale and lumbar range of motion scores will be assessed at pre treatment, 2nd week post treatment and 4th week post treatment. Oswestry Disability Index scores and Short Form 12 Health Survey Questionnaire will be assessed at pre treatment and 4th week post treatment. Research will be of 4 months duration. Statistical analysis will be performed on SPSS V.25. Independent sample t-test will be used for measuring between-group changes and Repeated measure ANOVA for measuring within -group differences.

Key Words: Low Back Pain, Backache, Diaphragm Manual Therapy, Routine Physical Therapy, Conventional Physical

Therapy.

Over 80% of people experience Lower back pain in their lives, of which 23% suffer from chronic pain. Physiotherapists use multiple treatment options for treating non-specific chronic low back pain such as joint mobilization, therapeutic exercises, electrotherapeutic modalities and soft tissue release techniques. The objective of the study is to determine the effect of conventional physical therapy with or without diaphragm manual therapy in patients with chronic non-specific low back pain. A randomized, single-blind clinical study will be performed. A sample size of 34 patients comprising of only male gender will be taken from various clinical settings of Faisalabad. Nonprobability purposive sampling technique will be used. Patients will be randomly allocated into two groups. Treatment Group A will perform Conventional Physical Therapy and Diaphragm Manual Therapy and Group B will perform Conventional Physical Therapy and Sham Diaphragm Manual Therapy. Numerical Pain Rating Scale and lumbar range of motion scores will be assessed at pre-treatment, 2nd-week post-treatment and 4th-week post-treatment. Oswestry Disability Index scores and Short Form 12 Health Survey Questionnaire will be assessed at pre-treatment and 4th-week post-treatment. The research will be of 4 months duration. Statistical analysis will be performed on Statistical Package for the Social Sciences Version 25. Mean $\pm$ Standard Deviation will be used to present Quantitative variables while Qualitative variables will be shown through frequency tables and percentages will be shown in the form of frequency tables and percentages. Summary of group measurements will be represented through Graphs. Normal distribution of data will be analyzed through skewness, kurtosis and Shapiro wilk test. If data is found normally distributed, then parametric tests will be applied, which will include an Independent sample t-test for measuring inter-group changes. Paired Sample t-test/Repeated measure ANOVA for measuring intra-group differences. If data is found non-normally distributed, then non-parametric tests will be applied, which will include Mann-Whitney U-Test for measuring inter-group changes and Wilcoxon Test/Friedman Test for measuring intra-group differences. P-value ≤ 0.05 will be taken as significant.