



## "A Comparative Study between the Effectiveness of Mfr versus Stretching With Home Based Strengthening Exercise Program in Non Specific Lowbackpain for Covid 19 -Worriers"

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### Key Words

NSLBP- Non-specific Low Back Pain  
WMSDs -Work-related Musculoskeletal Disorders  
WHO-World Health Organization  
CLBP-Chronic Low Back Pain  
MFR- Myofascial Release  
MLBP- Mechanical Low Back Pain  
AT- Aerobic Training  
RT- Resistance Training  
VAS- VISUAL ANALOGUE SCALE  
OLBPDS –Oswerty Low Back Pain Disability Scale

### I. INTRODUCTION:

Low back pain is a highly prevalent health problem that is associated with enormous costs worldwide. In developed countries, episodes of back pain are a leading cause of work absence, accounting for over 25% of all conditions involving days away from work. About 90% of the patients with low back pain will receive the diagnosis 'non-specific low back pain' (NSLBP).The overall global prevalence for WRMSDs is 20%-30% and the region more often reported to be affected was the low back. In the treatment of LBP, many non-

pharmacological and non-invasive techniques such as exercise, mobilization, and manipulation are well-known. In the treatment of LBP, core stability exercise is a common exercise method. With NSLBP, core stability exercises increase the strength of deep trunk muscles and help with low back impairment. Myofascial release technique is another method among the possible management options in the treatment of chronic musculoskeletal pain. It has been demonstrated that myofascial release technique produces a significant improvement in both pain and disability. lack of structural change in nonspecific LBP, it can limit daily activities and cause temporary or permanent inability to work. Nonspecific LBP is caused by postural deviations. The characteristics of nonspecific LPB are heavy pain, worsening with exertion especially in the afternoon, relieved with rest, absence of neurological and muscle contraction, and antalgic posture, associated with inactivity and poor posture. Therefore main purpose of this study is to compare the effectiveness between MFR techniques and stretching tech with home based strengthening



program in non-specific low back pain for covid 19 warriors.

## II. MATERIAL AND METHOD:

To compare the effectiveness between MFR Versus Stretching with home based strengthening exercise program in non-specific low back pain for covid 19 warriors. 40 patients with non-specific low back pain were randomly selected according to inclusion and exclusion criteria and divide into two groups – Group A: MFR with home based strengthening exercise program, Group B: stretching with home based strengthening exercise program.

### The aim of the study:

To compare the effectiveness between MFR Versus Stretching with home based strengthening exercise program in non-specific low back pain for covid 19 WARRIORS.

To evaluate the effects of MFR with home based strengthening exercise program on nonspecific low back pain patient for covid 19 WARRIORS.

To evaluate the effectiveness Stretching with home based strengthening exercise program in non-specific low back pain for covid 19 WARRIORS AND TO compare the effectiveness between MFR and Stretching with home based strengthening exercise program in non-specific low back pain for covid 19 WARRIORS. Comparative study design. 60 patients diagnosed with non-specific low back pain. 60 patients with nonspecific low back pain were randomly selected according to inclusion and exclusion criteria and divide into two groups – Group A: Group B: 12-16 Weeks (30 minutes per day, 5days in a week.)

## OUTCOME MEASURES

1. VISUAL ANALOGUE SCALE
2. OLBPD QUESTIONNAIRE
3. MCGILL PAIN QUESTIONNAIRE (MPQ)

## STUDY MATERIALS

1. Written concern form
2. General assessment form
3. Treatment couch
4. Paper-pencil
5. Chair

## PROCEDURE

60 Patients with LBP subjects were randomly selected based on inclusion and exclusion criteria. Then divided into 2 groups Group A&Group B (30 subjects each group).

Subjects of Group A (30 subjects)

received MFR with home based exercise program e and group B consist of 30 subjects who received Stretching with home based strengthening exercise program.

All the subjects were informed that they are under the experiment and prior constant of subject was sought before assessment. All the subjects' regimen including exercise level. Our study period was 30 minutes per day 5 session/ week, total of 16 weeks.

## III. DISCUSSIONS

The statistical analysis showed that there was a significant effect for both groups ( $p < 0.0001$ ) which means that both treatment groups were effective at reducing the mean over the course period of the study. The primary outcome was the VAS score which was significantly decreased in both groups. But, there was statistically significant difference between the groups over time point. As secondary outcomes, the OLBPDQ and MPQ score were significantly decreased in both groups. Considering the effects experienced in the clinical field, both VAS and OLBPDQ score was decrease statistically in-group, A which was treated with MFR techniques. MFR is often used to restore range of motion and decrease pain, thus allowing for the earlier return of function. The relaxation of tightened muscles, re-instate the circulation to an area (frequently accompanied by muscle spasm), thus increased venous and lymphatic drainage, and the Myofascial treatment aims to stimulate stretch reflexes in hypertonic/hypertonic muscles. Myofascial release technique uses mechanical pressure which can reduce adhesion between tissue and reduce muscle fiber tension. Applying pressure to the muscle belly activates the autonomic nervous system by stimulating sensory nerve fiber ending so that it responds to pressure by decreasing sympathetic activity, increasing gamma ( $\gamma$  motor neuron) motor neuron activity and relaxing Myofascial tension. In addition, the pressure exerted by physiotherapists can reduce venous lymphatic that occurs due to increased local circulation to the skin and muscles, reducing parasympathetic nervous activity and release relaxation hormones and endorphins, remove metabolic waste and helping to maintain the normal PH of tissue.(12) Thus, the low intensity eccentric/Concentric isometric force applied during the sessions is compensated by the prolong holding of the posture, leading to more effective stretching. In our study both the group showed statistical significant but while comparing the group treated with MFR techniques showed significant effect on reducing the scores of our both the outcome



measures (VAS & OLBPQ) than the group treated with stretching exercises.

#### IV. CONCLUSION

This study concludes that MFR techniques with home based strengthening exercise is more effective while comparing with stretching with home based strengthening exercise for non-specific back pain of COVID-19 warriors.

#### INCLUSION AND EXCLUSION

- The Study was limited due to Shorter Duration of treatment.
- The Study was limited due to less number of Nonspecific(LBP) Patients
- The Study was limited age group between 18 - 50 years.
- The Study was limited to Nonspecific involvement in LBP patient.
- The Study was limited on Only MFR Versus Strengthening with home based Strengthening Exercise program for treatment of NON-specific LBP Patient.
- Only Covid-19 warriors were taken as sample

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