

Physical Therapy Alleviates Anxiety in Patients with Low Back Pain

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Abstract

Background: Anxiety is considered to be one the major factor contributing factor leading to musculoskeletal and neurological conditions. It has been reported that many patients who complain of chronic pain disorders have developed symptoms of anxiety most likely-Headache, mood swings, fatigability, and change in sleep patterns.

Objective: Physical therapy plays an important role in alleviating the pain disorders in association with other alternative therapies most importantly counselling with cognitive behavior therapy.

Findings: Pain levels have been significantly reduced thus alleviated the anxiety levels. Though the recovery time for pain is short and faster, so the anxiety cannot be treated in the same duration and need more time for rehabilitation. This case report gives an evidence that the symptoms of back pain aggravates with the increase in anxiety levels and can be managed with the psychological counseling's.

Conclusion: A team approach can be designed followed various alternative therapies followed this case study for chronic pain disorders.

Keywords: Anxiety, Low back Pain, Chronic pain, Fatigue, Mood swings, Physical therapy

Introduction

Anxiety is a mood disorder which affects one's behavior and seen in all the age groups. It affects almost 20% of Indian Population and associated with various other symptoms most likely restless leg syndrome, anxiety, mood disturbances, palpitations, chronic muscle pain, depression, fatigue and sleep problems. Anxiety results in many muscular conditions more likely- myalgia, headache, low back pain, buttock pain, neck pain and neurological symptoms like dizziness, numbness, paresthesia and fibromyalgia. Physical Therapy can play an important role in treating muscular and neurological disorders and simultaneously helps in alleviating the symptoms of anxiety.^{[1][2]} This case study gives a clear picture about treating anxiety in the patients giving complains of low back pain.

Case Presentation

A 42-year-old female who owns her boutique from last 15 years. She works in both the boutique as well as in home with the help of her helping assistance. Four months ago, patient began developing LBP. She denies any injury and stated that this pain is regular from a long time and made her difficult to handle her work in boutique and home. To get relief and control the pain she has been consulted various health professionals and took mild to strong pain killers and short interval relaxation sessions during the worktime and feels that her family members and clients have started judging her for not pushing through the pain. She also reports that her pain has been become a serious problem and affecting her sleep, her overall health and her ability to run both boutique and home. She was hoping that the pain would resolve with pain killers and rest but the pain and other related symptoms like anxiety, headache and restlessness have been increased on the daily basis. She tried to reduce the working hours and even started skipping going to her workplace on weekly basis and starts feeling isolated. After a friend suggested her to Physiotherapist, she decided to visit the PT and would try to do anything that would help in alleviating the pain and other symptoms though unsure of how exercise will help her. Neelam has hypertension from last 3 years and no other relevant past medical history.

Methodology

Patient was assessed for various factors including range of motion, myotome assessment, fear of developing immobility, developing depression and anxiety as patient was going into isolation. Treatment regime was decided and modified as per the baseline data to alleviate the symptoms of this patient.

Assessment findings

Spine AROM and Hip AROM

Assessment results

Based on the Assessment and Findings-Patient has gross spinal hypo mobility. Her assessment results indicate that Anxiety, low back pain and fear-avoidance influence her routine activities.

Intervention techniques

- Abdominal Isometrics 3 sets of 10 repetitions with 10 secs hold.
- Quadruped lumbar movements 4 sets of 8-10 repetitions.
- Lumbar rotation 3 sets of 10 repetitions.
- Planks 3 sets of 8 repetitions with 30 secs hold time.
- Bilateral hamstring strengthening exercises 4sets of 8-10 repetitions.
- 30 minutes of moderate intensity recumbent treadmill walking
- Cognitive behavior therapy to combat anxiety and depression.
- Deep Breathing exercises in interval sessions

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| Spinal AROM | Pre-Treatment | Post Treatment |
|-----------------------|-------------------------------------|---|
| Lumbar Flexion | 40° | 45° |
| Lumbar Extension | 10° with pain | 15° |
| Lumbar Side Flexion | 10° with pain on Right, 15° on Left | 20° on Right, 20° on Left |
| Lumbar Rotation | 15° on Right, 10° with pain on Left | 17° on Right, 15° with minimal pain on Left |
| Thoracic Flexion | 28° | 30° |
| Thoracic Extension | 15° | 18° |
| Thoracic Side Flexion | 20° with pain on Right, 25° on Left | 27° |
| Cervical Flexion | 40° | 45° |
| Cervical Extension | 40° with pain | 43° |
| Cervical side Flexion | 45° on R, 42° on L | 53° on R, 47° on L |
| Cervical Rotation | 55° on R, 55° on L | 50° on R, 55° on L |
| Hip AROM | | |
| Flexion | 115° | 125° |
| Extension | 15° | 15° |
| Abduction | 40° | 45° |
| Adduction | 40° | 45° |
| Internal Rotation | 20° | 30° |
| External Rotation | 25° | 35° |

Table 1: Assessment Findings of Spinal AROM and Hip AROM.

| Tools/Scale used | Pre-Treatment | Post Treatment |
|--|-------------------------|----------------|
| FABQw (Fear-Avoidance Beliefs Questionnaire) | 48 | 37 |
| FABQpa (Fear-Avoidance Beliefs Questionnaire for Physical ability) | 25 | 16 |
| PSEQ (Pain Self Efficacy Questionnaire) | 7 | 20 |
| PHQ-9 (Patient Health Questionnaire) | 16 | 13 |
| MYOTOMES (L2, L3) | 3/5 | 5/5 |
| SUPERFICIAL SENSATIONS | Impaired to light touch | Intact |
| Deep Tendon Reflexes | 1+ | 2+ (Normal) |
| SLR | Positive (45°) | Negative |
| Step Test | Negative | Negative |
| Barber Chair Phenomenon | Negative | Negative |
| Femoral nerve stretch test | Negative | Negative |

Table 2: Assessment Results.

Discussion

Patient was recommended to visit clinical psychologist for cognitive behavior therapy. Parallel sessions of physical therapy were given to the patient. After 6 weeks, patient was discharged for home as the low back pain got resolved but advised to continue with the other sessions for anxiety.

Summary

The Team –Oriented approach for the patient management can help to reduce the pain thresholds while managing other related symptoms of Anxiety, Fatigability, Generalized body pains, mood swings without increasing health care expenses. Physical therapy will play an integral role in the management of chronic pain disorders. It is important to plan the treatment protocol based on the history and symptoms of the patient to alleviate his psychosocial factors along with the musculoskeletal and Neurological findings by providing a holistic approach.

Informed Consent

An informed consent was obtained from the patient prior to start her assessment and confirmed her willingness to take the treatment as proposed also, for the publication of this case report and the accompanying test values.

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