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Task-oriented approach enhancing quality of life in patient with post Covid fatigue syndrome-A case study

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Abstract
Introduction: Countries all across the world are in various stages of the pandemic with many countries now entering the "day after" COVID-19 phase. Rehabilitation might very well be a key strategy to reduce the impact of COVID-19 on the health and function of people. Physiotherapists are instrumental in the rehabilitation of patients as they transition from the acute phase to the post-acute phase
Objective: The objectives of this work were to fill the gap in the scientific literature and to evaluate the results of physical therapy treatment – Task oriented Approach on enhancing the quality of life in individuals affected by Post covid fatigue syndrome.
Methods: The study was a clinical case study of the patient who is 32 years old man, admitted for covid pneumonia. After discharge patient was put under post covid physiotherapy management for his fatigue syndrome. Intervention was tailored protocol i.e. Task oriented approach for a period of 4 weeks, 3 session per week. The patient was assessed at the baseline using TUG test, 30seconds sit to stand test, RPE (Rate of Perceived Exertion) and reassessed after 4weeks.
Results: There was a significance difference in all the outcome measures with mean difference in TUG test, Sit – Stand test and RPE.
Conclusion: Post Covid Fatigue Syndrome involves both physical and mental fatigue. Physiotherapy technique like Task Oriented Approach is most effective in reducing medium and long-term fatigue severity in Post Covid Fatigue Syndrome patients.

Keywords: post fatigue syndrome; physical therapy – task oriented approach; quality of life

Introduction

Countries all across the world are in various stages of the pandemic with many countries now entering the "day after" COVID-19 phase. These patients will be in need of rehabilitation in all phases of the disease - acute, post-acute and long-term. Rehabilitation might very well be a key strategy to reduce the impact of post covid fatigue syndrome on the health and function of people. Physical deconditioning, reduced functional capacity leads to a higher risk for muscle weakness, pain, depression, and decreased quality of life. Fatigue is a complex state, characterized by lack of alertness and reduced physical and mental performance. A subjective lack of physical and mental performance interferes with usual activities, which determines the quality of life of the individual. The approaches to fatigue are a 'whole-body' phenomenon. Task oriented approach is a shift from training at impairment level to training on activity level. Training needs to be repetitive, task specific meaningful for individual. Task oriented training includes a wide range of interventions such as treadmill training, bicycling, walking training on ground, endurance training, sit to stand exercise, reaching task for improving balance, arm training likes grasping object, constraint induced movement therapy, cognitive therapy and mental imagery therapy. Active use of task oriented training in daily activity leads to improvements in functional outcome and overall health related quality of life.

Objective

The objectives of this work were to fill the gap in the scientific literature and to evaluate the results of physical therapy treatment – Task oriented Approach on enhancing the quality of life in individuals affected by Post covid fatigue syndrome.

Method

The present study was a clinical case study of the patient who is 32 years old man, who was previously very fit and well with no medical history. He was admitted for covid pneumonia. After discharge patient was put under post covid physiotherapy management for his fatigue syndrome. The complex nature of fatigue is probably best approached by the multi-dimensional approach- Task Oriented approach.

Intervention

Intervention was tailored protocol i.e. Task oriented approach for a period of 4 weeks, 3 session per week, with a duration of 40 - 60mints per session including the intermittent resting period.
Task oriented training, includes
Treadmills training,
Bicycling,
Climbing up and down stairs,
Reaching objects,

Grasping object,
Cognitive therapy and
Mental imagery therapy.

The patient was assessed at the baseline using TUG test, 30seconds sit to stand test, RPE (Rate of Perceived Exertion) and reassessed after 4weeks.

Data Interpretation

Table 1: Represents the Pre and Post Test Value of Tug Test, 30 Seconds Sit to Stand Test, RPE (Rate of Perceived Exertion)

Tools	Tug Test		30 Sec Sit To Stand Test		RPE	
Test	Pre Test (Sec)	Post Test (Sec)	Pre Test (Count)	Post Test (Count)	Pre Test (Score)	Post Test (Score)
Values	25	16	4	10	3	8
Difference	9		6		5	

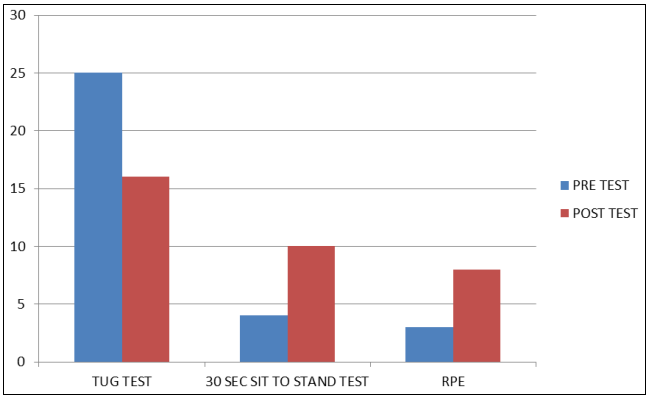

Fig 1: Represents the Pre and Post Test Value of Tug Test, 30 Seconds Sit To Stand Test, RPE (Rate of Perceived Exertion)

Result

The result shows that, there was a significant difference in all the outcome measure. There was a significant improvement in the TUG test, Sit to stand test and RPE scores, when compared for pre and post intervention, indicating a significant improvement in reducing fatigue and enhancing the quality of life of the individual.

Discussion

Fatigue is a wide-ranging condition, affecting people in all areas of life. Fatigue has become the most commonly reported symptom after covid. Which have a major effect on both physical and mental function. The complex nature of fatigue is probably best approached by the multi-dimensional approach like task oriented approach. Ultimate goal is to return patient to their prior levels of function, improving their quality of life by getting them back to normal. Result showed the significant improvement in health of the individual. Thus the study proves, that Task oriented approach is more effective in enhancing the quality of life in individual with post fatigue syndrome.

Conclusion

Post Fatigue Syndrome generally worsens in its physiological and psychosocial impact on an individual over time. Management options must be centered on improving clinical symptoms, maintaining and maximizing functional capacity and developing a tailored programme to each individual. Multi-disciplinary management is required due to the multiple and specific needs affecting patients with post covid fatigue syndrome.

The study concludes that, Task Oriented Approach was found to be more effective in enhancing the quality of life in patients with Post Covid Fatigue Syndrome.

Clinical Implication

TASK Oriented training is used as a rehabilitation strategy to improve motor skill. It is a neural rehabilitation approach effective in improving the functional ability of the patient. It is patient centered task oriented training not only intend on result but also on activity of the patient.

Task oriented approach is a repeated training of activity task associated with daily activities. Patient with fatigue syndrome faces discomfort in their both physical and mental performance, and coordinated social activity. Intervention for such patients should be multidimensional. Task oriented approach is multi – dimensional approach focusing on strength, endurance, cognitive therapy and mental imagery technique.

The method of traditional rehabilitation movements is composed of simple repeated movements, which does not attracts patient interest on treatment, and effect of treatment is low and patient has poor prognosis. On the other hand Task Oriented Approach encourages, motivates and increases patient interest on treatment; as a result treatment will be effective in prognosing the patient.

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