

# THE USE OF PSYCHOTHERAPY IN PHYSICAL AND MENTAL REHABILITATION

PARUL SHARMA

Assistant professor

Department of physiotherapy

Delhi pharmaceutical science and research university, New delhi , India ABSTRACT

**Purpose of the study:** - This paper reviews the literature relating to the psychotherapy such as cognitive behavioural therapy, biofeedback, mirror therapy, meditation ( relaxation technique) used in musculoskeletal and neurological disorders in physical rehabilitation such as chronic pain, stroke, spinal cord injury , complex regional pain syndrome, multiple sclerosis, cancer etc. The purpose of psychotherapy are to treat emotional, behavioral or mental dysfunction, remove negative symptoms such as anxiety or depression, modify or reverse problem behaviors, help the individual cope with situational crises such as bereavement, pain, or prolonged medical illnesses, improve the individual's relationships, manage conflict or enhance positive personality growth and development.

**Methodology:** We searched articles in PubMed database and presented various studies according to their relevance and searched also in the COCHRANE Database of Systematic Reviews and reviews of Science Direct related to rehabilitation therapy, physiotherapy, psychological, psychosocial and psychotherapy. This review investigated the range of methods for improving physical, psychosocial, occupational, and social well being.

**Results:** Psychotherapeutic techniques has been scientifically proven to be effective in numerous clinical trials for varying disorders to improve psychosocial, cognitive, and occupational outcomes.

**Conclusion:-** We should add psychosocial management programs to our standard rehabilitation regimens clinically so that patients get good physical health as well as good mental health

**Index Terms :** Psychotherapy, Physiotherapy, Mental health, physical health.

## INTRODUCTION

### Physiotherapy in mental and physical health care:

According to the World Health Organization (WHO) , mental health is 'a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community. (1). More severe physical diseases such as cardiovascular diseases, Parkinson's disease, rheumatoid arthritis, hypertension, Diabetes mellitus, metabolic syndrome, asthma, asthma/chronic obstructive pulmonary disorder (COPD), cerebrovascular diseases (stroke), obesity, epilepsy, cancer and other diseases are frequently accompanied with a 'rollercoaster' of emotions, feelings of anxiety and pain.

Physiotherapy in mental health care and psychiatry can offer added and beneficial value to the treatment of people with mental health problems. Exercise helps to improve general daily activity, cognition and independency;

increase cardio respiratory fitness, strength and balance; reduce Health related approaches or psychotherapeutic physiotherapy Depending upon the problem, the story of the patient, and the results of the observation/evaluation, the physiotherapist can choose a more health-related approach or psychotherapeutic physiotherapy :

The physical health-related approach aims to improve the global physical health of patients with psychiatric disorders. Physical activity can help to reduce cardiovascular disease and premature mortality in people with psychological problems.

The psychosocial-related approach emphasizes the acquisition of mental and physical proficiencies related to the body in motion and support of personal development to enhance people's ability to function independently in society.

The psychotherapeutic-related approach uses the body in movement as a gateway to ameliorate the social affective functioning of an individual. osteoporosis, sarcopenia, falls and risk factors for falls; increase quality of life and social activities; and reduce social isolation, loneliness, and fear . ( 2 ).

### **Rehabilitation Psychology**

Rehabilitation Psychology is a specialty area within psychology that focuses on the study and application of psychological knowledge and skills on behalf of individuals with disabilities and chronic health conditions in order to maximize health and welfare, independence and choice, functional abilities, and social role participation across the lifespan. ( 3 ).

Powerful Psychotherapy Interventions such as Relaxation therapy , Biofeedback, Cognitive Behavioral Psychotherapy, Behavioral Programming , Group / Family therapy, mirror therapy etc. (4)

Examples of such conditions include spinal cord injury, brain injury, stroke, amputation, cancer, AIDS, multiple sclerosis, limb weakness, chronic pain, congenital or chronic developmental disorders (e.g., intellectual disability), chronic mental illness, substance abuse, impairments in sensory functioning, burn injury, deafness and hearing loss, and blindness and vision loss.( 5 )

The purposes of psychotherapy are to treat emotional, behavioural or mental dysfunction, remove negative symptoms such as anxiety or depression, modify or reverse problem behaviors, help the individual cope with situational crises such as bereavement, pain, or prolonged medical illnesses, improve the individual's relationships, manage conflict or enhance positive personality growth and development.

(6). In a study done by Turk et al. , psychosocial treatment approaches, cognitive behavioral methods and the prevalence of emotional stress have been investigated and the effectiveness of psychological treatment have been evaluated. It showed that psychosocial support increases the efficacy.

### **Cognitive behavioural therapy**

Primary goal of cognitive behavioral therapy (CBT) is to find and correct the negative, irregular and irrational thoughts that have become automatic by being repeated. It looks at how people think about and create meaning about, situations, symptoms and events in their lives and develop beliefs about themselves, others and the world. These ways of thinking (harmful, unhelpful or 'false' ideas and thoughts) are seen as triggers for mental and physical health problems.

By challenging ways of thinking, cognitive therapy can help to produce more helpful and realistic thought patterns of treatment.

Conditions that can be treated by cognitive behavioural therapy

- depression
- Generalised anxiety disorder (GAD) and panic
- Body dysmorphic disorder (BDD)
- Post-traumatic stress disorder (PTSD)

### **Relaxation therapy**

Relaxation therapy is a process that focuses on using a combination of breathing and muscle relaxation in order to deal with stress. Relaxation therapy is useful in decreasing anxiety, autonomic hyperactivity and muscle tension.

Relaxation techniques include a number of practices such as progressive relaxation, guided imagery, biofeedback and deep breathing exercises may be helpful in managing a variety of health conditions, including anxiety associated with illnesses or medical procedures, insomnia, labor pain, chemotherapy-induced nausea, and temporomandibular joint dysfunction.

Relaxation techniques, can help manage chronic headaches and other types of chronic pain in children and adolescents. (7)

### **Mirror therapy**

This is a rehabilitation procedure developed with the hope of correcting this disorganization and thus decrease the pain.

Mirror therapy is one of the rehabilitation methods that is widely used in patients suffering from neuropathic pain.

In mirror therapy, the patient puts his affected limb into mirror box and keeps the unaffected side in front of the mirror. Unaffected limb in front of the mirror makes simple movements, patient imagines doing same movements with the affected limb. Although the pain may increase at the time, the patient tries to tolerate it.

This method has been used in patients with stroke, phantom limb pain and complex regional pain syndrome (CRPS) and found effective in increasing upper extremity functionality. (8)

### **Behavioural therapy**

This is a treatment approach based on clinically applying theories of behaviour that have been extensively researched over many years. It is thought that certain behaviours are a learned response to particular circumstances and these responses can be modified.

Behavioural therapy aims to change harmful and unhelpful behaviours that an individual may have.(9).

### **Biofeedback**

The biofeedback measurements which are frequently used in physical rehabilitation can be categorised as being either physiological or biomechanical .

The physiological systems of the body which can be measured to provide biofeedback are the neuromuscular system, the respiratory system and the cardiovascular system.

Biomechanical biofeedback involves measurements of movement, postural control and force. EMG biofeedback is a method of retraining muscle by creating new feedback systems as a result of the conversion of myoelectrical signals in the muscle into visual and auditory signals . EMG uses surface electrodes to detect a change in skeletal muscle activity, which is then fed back to the user usually by a visual or auditory signal.

EMG biofeedback can be used to either increase activity in weak or paretic muscle or it can be used to facilitate a reduction in tone in a spastic one. EMG biofeedback has been shown to be useful in both musculoskeletal and neurological rehabilitation. (10)

Last but not the least,

Therefore, we should explore more psychological approaches for implementing in Rehabilitation field.

#### **ACKNOWLEDGEMENT:**

This work was supported by Dr. Jaspreet Kaur Malik And Dr. Manoj Malik From the department of physiotherapy, Guru Jambheshwar university of science and technology, Hisar. We are very thankful for the valuable suggestions and inputs to My Husband and My mother also.

#### **Declaration of interest**

There was no declaration of interest. There was no conflict to interest among any of the authors whatsoever. The information contained in the manuscript and related files is not submitted to any other journal in any form, by any of the authors and is absolutely new and confidential in terms of scientific values

**Conflict of interest:** None

#### **REFERENCES**

1. Silvana Galderisi , Andreas Heinz, Marianne Kastrup, Julian Beezhold, and Norman Sartorius, 2015, Toward a new definition of mental health, *World Psychiatry*; 14(2): 231–233
2. Michel Probst, 2017, *Physiotherapy and Mental Health*, <http://dx.doi.org/10.5772/67595>
3. Rehab Psych? — Division of Rehabilitation Psychology, [www.div22.org/what-is-rehab-psych](http://www.div22.org/what-is-rehab-psych)
4. Gianluca Castelnuovo, Emanuele M. Giusti et al , 2016, Psychological Treatments and Psychotherapies in the Neurorehabilitation of Pain: Evidences and Recommendations from the Italian Consensus Conference on Pain in Neurorehabilitation Saviola, *Front Psychol*; 7: 115, doi: 10.3389/fpsyg.2016.00115
5. Allen Heinemann, *Rehabilitation psychology*, encyclopedia Britannica
6. [www.omicsonline.org](http://www.omicsonline.org)
7. *Relaxation Techniques for Health*, national centre for complementary and integrative health, 2016, [https://nccih.nih.gov/sites/nccam.nih.gov/files/Relaxation\\_Techniques\\_05-31-2016.pdf](https://nccih.nih.gov/sites/nccam.nih.gov/files/Relaxation_Techniques_05-31-2016.pdf)
8. Gulseren Akyuz\* and Ozge Kenis, 2013, *Physical Therapy Modalities and Rehabilitation Techniques in the Treatment of Neur*, Marmara University, School of Medicine, Department of Physical Medicine and Rehabilitation, tanbul, Turkey
9. Dr Laurence Knott, 02 Apr 2014, *Cognitive and behavioural therapies*, Mental health

( Psychiatry)

10. Oonagh M Giggins, Ulrik McCarthy Persson, 2013, Biofeedback in rehabilitation,2 and Brian Caulfield, J Neuroeng Rehabil. ; 10: 60, doi: 10.1186/1743-0003-10-60

