

# Role and Importance of Physiotherapy during Palliative Care in India: A systematic Review

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## Abstract:

### Background and Purpose of the Study

*Palliative care is the multidisciplinary therapeutic approach for people with life limiting illness. It focuses on providing relief from symptoms such as pain, physical stress and mental stress at any stage of illness. The goal is to improve quality of life of the patients and indirectly relief to their families. There are number of evidences that support palliative care and its effectiveness in improvement of quality of life of the patients at end of life. Physiotherapy is one of the healthcare professions in which Mechanical Forces, Manual therapy, Exercise therapy, Electrotherapy is used to remediate impairments and promotes mobility and functions. Physiotherapy is used to improve quality of life of the patients during palliative care. There has been limited research conducted to investigate the importance of role of physiotherapy in palliative care setting. So, the purpose of this study was to contribute a review to the current research involving the importance of physiotherapy during palliative care and end-of-life care in terms of its efficacy, value, and how this value is perceived by patients and their caregivers.*

*Methods: This study was completed by independently screening and reviewing the ten year studies that were published between the years 2008 to 2018 related to the role of physiotherapy during palliative care. The databases and journals searched included Google Scholar, PUBMED, MEDLINE and PEDro.*

*Results: Throughout all of the 11 reviewed articles, it was reported that physiotherapy results in improvements in a variety of aspects of patient's functions and relief of symptoms. The most frequently described benefit after receiving physical therapy care was a substantial decrease in patient-rated musculoskeletal pain levels. These benefits signify the valuable role that physiotherapy plays in caring for patients during palliative care and the impact it can have on patients' functions and symptom management.*

## Introduction

Physiotherapy plays a very important role to provide the best possible quality of life for the palliative patient and their family for the rest of the time. Physiotherapy is concerned with identifying and maximizing the quality of life and the movement potential within the spheres of promotion, prevention, treatment/intervention, and rehabilitation. This encompasses the physical, psychological, emotional, and the social wellbeing. Physiotherapy involves the interaction between the PT, patients/clients, other health professionals, families, care givers and communities, in a process where the movement potential is assessed and goals are agreed upon, by using the knowledge and the skills which are unique to the physiotherapist.

## Palliative care

WHO's definition of palliative care is an approach that improves the quality of life of patients and their families facing the problem associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual. Palliative care provides relief from pain and other distressing symptoms affirms life and regards dying as a normal process intends neither to hasten or postpone death integrates the psychological and spiritual aspects of patient care offers a support system to help patients live as actively as possible until death offers a support system to help the family cope during the patients illness an in their own bereavement uses a team approach to address the needs of patients and their families, including bereavement counseling.

An ideal multidisciplinary team consists of Physicians / Surgeons, Nurses, Social Workers and Physiotherapists. Some other members who are very useful but are not a part of the core team are: Clinical psychologists, Clinical Pharmacists Music and /or art therapists and Occupational therapists.

Palliative care is total care considering the physical, psychological, social and existential needs. The care could be said to be built on the four corner stones, symptom control, team work 24 hours a day, continuity and support for the family.

## Role of physiotherapy during palliative care:

Patients live with their illness longer today in a palliative stage thanks to the improved medical treatment. Many of these patients get chronic functional impairment caused by the disease or by medical or surgical treatments. This makes rehabilitation and physiotherapy very important. Physiotherapy during palliative care is a comparatively new concept now more often used in palliative care, even if it is described already in the 1960s. The aim of having a rehabilitative approach when treating patients in palliative care is to set the goal for treatment so that the patient can keep or improve functions and reduce the consequences of the disease for as long as possible. The goal for the physiotherapeutic treatment is to keep as much independency as possible to make the important activities for the patient easy.

**Physiotherapy approaches and techniques include:****Physical exercises:**

Reduced levels of physical activity are commonly observed in patients with chronic diseases like COPD, lung cancer, etc. Physical exercises were performed by almost 70% of our hospice patients (1). The patients who initially performed active exercises lived longer, on average, compared to patients who only managed passive exercises. Patients' level of activity during physical exercises has the potential to be a valuable new clinical biomarker in palliative care. Recent research supports the benefit of physiotherapy in palliative care, as majority of hospice patients are able to perform physical therapy. The exercise programme caused a significant reduction in fatigue scores (BFI) in terms of severity of fatigue and its impact on daily functioning. The physiotherapy programme, which included active exercises, myofascial release and PNF techniques, had beneficial effects on CRF (cancer related fatigue) and other symptoms in patients with advanced cancer who received palliative care. The results of the study suggest that physiotherapy is a safe and effective method of CRF management (2). Patients reported an awareness of the positive physical, psychological, and social consequences of exercising. A programme of 10 gym-based exercise sessions including exercises to strengthen arms, legs, and core muscles, and to improve balance and cardiovascular fitness (3). This was further supported by a home-based exercise programme. Improvements were observed in physical performance, fatigue, and overall quality-of-life scores post-intervention. The POSITIVE study is a randomized, controlled trial investigating the effects of a 24-week exercise intervention during palliative treatment on quality of life, physical performance (isometric contraction, 6min walk distance) and immune function in advanced, non-operable lung cancer patients. There is a significant improvement in quality of life scores and fatigue levels after 12 weeks (4). The most frequently described benefit after receiving physical therapy care was a substantial decrease in patient-rated musculoskeletal pain levels. Chief improvements in function/performance in activities of daily living, improvement in quality of life and mobility were noted. Several other benefits were noted by individual studies including improvements in endurance, mood, and fatigue. These benefits signify the valuable role that physiotherapy plays in caring for patients during palliative care and the impact it can have on patients' functions and symptom management.

**Physical modalities:**

Pain relief is a major goal for palliative care in India so much that most palliative care interventions necessarily begin first with pain relief. Pain is the chief symptom reported by patients in a palliative care unit. The use of physical modalities such as massage, heat, and cold can be implemented at bedside and aid in the pain management of patients. Their use may decrease the need for pain medications. Heating soft tissues prior to a range of motion exercises and activity can decrease pain, muscle spasm and joint stiffness. Transcutaneous Electrical Nerve Stimulation (TENS) is the most frequently used form of electro-therapy in the palliative setting, generally used in the treatment of neuropathic, bone, and chronic pain. Soft tissue manipulation technique provides relaxation, pain relief and psychological benefits.

**Respiratory exercises (pulmonary rehabilitation):**

Relief of dyspnoea is an important aim of treatment of respiratory diseases. Pursed lip breathing, respiratory muscle training, body position, thoraco- abdominal movements, active cycle of breathing comprises the use of relaxed diaphragmatic breathing, thoracic expansion. Controlled breathing involves the use of the lower chest or upper abdomen. It encourages better use of the diaphragm. Lung cancer patients were audited on their distress from breathlessness and their ability to cope with breathlessness by Visual Analogue Scale.(5)The breathlessness training consisted of breathing control, anxiety management, activity pacing when walking and climbing stairs, relaxation (based on Mitchell 1977) and chest clearance (postural drainage and active cycle of breathing are very beneficial.

**Relaxation exercises:**

Relaxation is always the first therapeutic step in behavioral training where it reinforces acceptance and adaptive coping for pain. Relaxation techniques facilitate a decrease in muscle tension and mental stress. Relaxation exercises are often successfully used to help the patient fall asleep. It is a useful technique for reducing post-partum distress and provides psychological benefits, emotional balance, and mood, reduces anxiety and depression. Relaxation and breathing exercises helps to manage stress.

**Ambulation:**

Walking is the most functional exercise. We will assess need for walking aids (walker, cane, crutches, etc.) Many benefits of using ambulatory devices are: Reduces stiffness / relaxes tight muscles, Upright / weight-bearing posture. Patient has feeling of purpose, and feels they can do something for themselves. Assistive devices are useful for training functional activities for patients with limited function.

**Physical independence:**

In some studies, patients mentioned the importance of prolonging independence and one specifically spoke about delaying dependence on others for as long as possible. Physical exercises and gym based exercises gave confidence and hope to the patient that there was something that could be done to improve their situation (6). In early stage or curable cancer, patients often perceive that their physical status will improve with exercise. Palliative care provides functional independence to the patient and helps to achieve activities of daily living.

**Balance and posture control (Neuro Rehabilitation):**

People with MS often have poor postural control, which makes them more susceptible to falls. Based on several studies of balance and gait in MS, it appears that the principal mechanisms underlying the observed changes are slowed somatosensory conduction and impaired central integration. Hence, balance retraining is an important domain to be managed in MS.

Physical activity results in improved overall QOL, motor control and sense of well-being in persons with neurodegenerative disorders. (7)

**Overall improvement in quality of life (QOL):**

The primary goal of physiotherapy in palliative care is to achieve the best possible QOL for both the patient and their families. The purpose of palliative care is to improve overall quality of life of the patient until death. The primary aim of physiotherapy is to clarify the changes in the functional status and quality of life of patients with metastatic/locally advanced cancer who received rehabilitation therapy. The functional independence measure (FIM) score significantly decreased, the overall quality of life significantly increased (8). The main aim of physiotherapy is to improve quality of life by alleviating the symptoms and allowing optimising patient's level of physical function and

taking into consideration the interplay between the physical, psychological, social, and vocational domains of function. Through utilizing interventions for symptom control, physiotherapy was able to have a positive influence on the quality of life and perceived well-being in these patients, which further supports the findings of this review.

### Conclusion:

The physiotherapist has a vital role to play in maintaining an optimal level of physical functioning in the palliative patient. Physiotherapy found to have a positive influence on quality of life and perceived well being in a wide range of patient populations requiring palliative care such as cancer, HIV, neurological disorders, cardiopulmonary conditions and mental illnesses. The purpose of this study was to contribute a review to the current research involving physical therapy and end-of-life care in terms of its efficacy, its value, and how this value is perceived by patients and their caregivers in India. This was completed by analyzing the currently available literature on this topic from January 2008 till March 2018.

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