

Current Role of Physiotherapy in Response to Changing Healthcare Needs of the Society

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Abstract

Health is a condition of inclusive physically, mentality and socially wellbeing of a person, but not exclusively the lack of illness or disease. Physical therapy or Physiotherapy often abbreviated as PT is an active healthcare occupation that aims to help the individuals with the achievement, maintenance and restoration of maximal physical functioning and health throughout their lifetimes. Physiotherapy is a healthcare profession that remediates impairments and promotes mobility, function, and quality of life through examination, diagnosis, and physical intervention (therapy using mechanical force and movement). In addition to clinical practice, other activities encompassed in the Physical therapy profession include research, education, consultation and administration. Physiotherapy is grounded in the belief that to be effective, its services must respond to the changing needs of populations and our health system. In many settings, Physical therapy services may be provided alongside or in conjunction with other medical or rehabilitation services, including occupational therapy. Physical therapy is performed by a Physical therapist (PT) and from time to time services are provided by a Physical therapist assistant (PTA) working under his supervision and often both work together in combination to provide treatment to patients. The profession is shaped by scientific evidence and the education and competencies of the physiotherapists delivering the services. Each area of Physiotherapy intervention has its own specialized techniques and is based on scientific evidence. Physical therapy is a professional career which has many specialties including sports, neurology, wound care, cardiopulmonary, geriatrics, orthopaedic and pediatrics. The neurological rehabilitation technique used in physiotherapy today in particular is a rapidly emerging field. Thus, the main interest and objective of this article are to identify and maximize the quality of life and potential for movement of each person in the areas of promotion, prevention, treatment or intervention, in addition to adaptation and rehabilitation of health in the field of Physical therapy.

Keywords

Physical Therapy, Physiotherapy, Health Care, Medical, Rehabilitation

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1. Introduction

The importance of health, fitness, and wellness brings practical health news and tips to the public based on extensive research. When we take responsibility for our own health and well-being, we can improve our health on a daily

basis by keeping our mind and body sharp with the latest health and fitness news and information from healthcare professionals. Healthcare professionals diagnose and treat individuals of all ages, from newborns to the very oldest,

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who have medical problems or other health-related conditions, illnesses or injuries that limit their abilities to move and perform functional activities as they would like in their daily lives (Sarwar *et al.*, 2013; 2015; Sarwar *et al.*, 2013; 2014). Physical therapy or Physiotherapy, often abbreviated PT, is the art and science of physical care and rehabilitation. Physical therapy is defined as the care and services provided by or under the direction and supervision of a Physical therapist (American Physical Therapy Association, 2003).

Physical therapy is carried out by a Physical therapist (PT) and now and then services are offered by a Physical therapist assistants (PTA) working under their guidance. Physical therapists and Physical therapist assistants frequently work jointly in concurrence to provide treatment for patients. It involves the interaction between therapists, patients, other health care professionals, families and communities. Physiotherapists are highly skilled and autonomous health professionals who provide safe, quality client-centered physiotherapy through a commitment to service availability, accessibility and excellence (American Physical Therapy Association, 2001). Physical therapy is the area of health responsible for promoting, developing, maintaining and restoring people's maximum movement and functional ability throughout their lives. Its main interest and objective is to identify and maximize the quality of life and potential for movement of each person in the areas of promotion, prevention, treatment or intervention, in addition to adaptation and rehabilitation of health (Vogele, 2013).

Physiotherapy has existed as a form of treatment for dysfunctions and disabilities for thousands of years. It is considered a key treatment in the rehabilitation of patients suffering from debilitating conditions as a result of accidents or diseases. Modern Physical therapy has established itself towards the end of the 19th century due to events that have an effect on a global scale, which called for rapid advances in Physical therapy. Physical therapy as a professional career has many specialties including sports, neurology, wound care, cardiopulmonary, geriatrics, orthopaedic and pediatrics. Neurological rehabilitation is in particular a rapidly emerging field. Physical therapists practice in many settings, such as outpatient clinics or offices, health and wellness clinics, rehabilitation hospitals facilities, skilled nursing facilities, extended care facilities, private homes, education and research centers, schools, hospices, industrial workplaces or other occupational environments, fitness centers and sports training facilities (American Physical Therapy Association, 2008). Physiotherapy is anchored in movement sciences and aims to enhance or restore function of multiple body systems. The profession is committed to health, lifestyle and quality of life. This holistic approach incorporates a broad range of physical and physiological therapeutic interventions and aids.

2. Physiotherapy Education

Worldwide, Physical therapy education greatly varies from country to country. Globally Physical therapy training ranges from basic work education in hospitals and outpatient clinics to professional Bachelor, Master and Doctorate degrees and programs. Most of Physical therapists practicing under a specialty have to undergone further training in Physical therapy. The universities admit Physical therapists in their programs of study related to health sciences and rehabilitation in order to credit courses that have been completed in colleges. After completing their technical college diploma, Technicians or Aides have the opportunity to pursue their studies at the university level to obtain a bachelor's degree in Physiotherapy. The licensing requirements for Physical therapists vary among jurisdictions of a state, as each state has passed its own Physiotherapy regulations.

3. Specialty in Physiotherapy

Because the knowledge of Physical therapy is vast, so, it usually specializes in a specific clinical area. In Physiotherapy, a broad statement Prognosis predicts a patient's likely status, or degree of change, at some time in the future; at the level of the individual, a prognosis provides the practitioner and patient with critical information, including the patient's expected future health status, likely response to intervention, and likely duration of treatment (Beattie and Nelson, 2007). There are many different types of Physical therapy, below are stated some of the specialist certifications.

3.1. Cardiovascular and Pulmonary Physiotherapy

Physiotherapy offers therapy for a wide variety of cardiopulmonary disorders or pre and post cardiac or pulmonary surgery. Primary goals of this specialty include increasing endurance and functional independence. Pulmonary disorders, heart attacks, post coronary bypass surgery, chronic obstructive pulmonary disease and pulmonary fibrosis, treatments can benefit from cardiovascular and pulmonary specialization.

3.2. Clinical Electrophysiology

This specialty area includes electrotherapy, electrophysiological evaluation, physical agents and wound management.

3.3. Geriatric

Geriatric Physical therapy covers a wide area of issues concerning peoples as they go through normal adult aging

but is usually focused on the older adults. There are many conditions that affect many peoples as they grow older and include arthritis, cancer, hip and joint replacement, balance disorders, incontinence, and providing therapy for such conditions in older adults.

3.4. Integumentary

Integumentary deals with the treatment of conditions involving the skin and all its related organs. Common conditions managed include wounds and burns by utilizing surgical instruments, mechanical lavage, dressings and topical agents to debride necrotic tissue and promote tissue healing. Other commonly used interventions include exercise, edema control, splinting and compression garments.

3.5. Neurological

Neurological Physical therapy or neurophysiotherapy focuses on working with individuals who have a neurological disorder or disease including stroke, chronic back pain, brain injury, cerebral palsy, multiple sclerosis, facial palsy and spinal cord injury. Common impairments associated with neurologic conditions include impairments of vision, balance, ambulation, movement, muscle strength and loss of functional independence (McEwen, 2006).

3.6. Orthopedic

Orthopedic Physical therapy deals with diagnose, manage and treat disorders, and injuries of the musculoskeletal system including rehabilitation after orthopedic surgery. This specialty of Physical therapy is most often found in the out-patient clinical settings. Orthopedic therapy also deals in the treatment of post-operative orthopedic procedures, fractures, acute sports injuries, arthritis, sprains, strains, back and neck pain, spinal conditions, and amputations. Those who have suffered injury or disease affecting the muscles, bones, ligaments or tendons can benefit from a Physical orthopedics.

3.7. Pediatric

Pediatric therapy assists in the diagnosis, treatment and management of infant, child and adolescent populations with a variety of congenital, developmental, neuromuscular, skeletal or acquired disorders and diseases. The treatments focus mainly on improving gross and fine motor skills, balance and coordination, and strength and endurance.

3.8. Sports

Physiotherapy is closely involved in the care and wellbeing of athletes including recreational, semi-professional (paid) and professional (full-time employment) participants. This area of practice covers athletic injury management under 5 main categories, acute care (assessment and diagnosis of an

initial injury), treatment (application of specialist advice and techniques to encourage healing), rehabilitation (progressive management for full return to sport), prevention (identification and address of deficiencies known such as movement assessment), and education (sharing of specialist knowledge to individual athletes, teams or clubs to assist in prevention or management of injury).

3.9. Women's Health

Women's health Physical therapy mostly addresses women's issues related to the female reproductive system, child birth and post-partum. These conditions include pelvic pain, prenatal and post-partum periods, urinary incontinence and other disorders associated with pelvic floor dysfunction. Manual Physical therapy has been demonstrated in multiple studies to increase rates of conception in women with infertility (Kramp, 2012; Rice et al., 2015).

3.10. Palliative Care

Physiotherapy in the field of Oncology and Palliative care is a continuously evolving and developing specialty, both in malignant and non-malignant diseases. Rehabilitation for both groups of patients is now recognized as an essential part of the clinical pathway, as early diagnoses and new treatments are enabling patients to live longer, so that they can function at a minimum level of dependency and optimize their quality of life.

3.11. Rehabilitation Physiotherapy

Rehabilitation is about enabling and supporting of individuals to recover or adjust, to achieve their full potential and to live as full and active lives as possible. Rehabilitation can also help with stamina management in the case of asthma, chronic fatigue syndrome or following major surgery. For this purpose, plan short-term goals as well as final target for rehab and follow rehab program and pace the activities on recovery (Finch et al., 2002).

4. Role of Physiotherapy

Physiotherapy plays an important role in the recovery of patients facing stroke. It plays a major role in treating children with cerebral palsy and also has a vital role in cardio pulmonary rehabilitation. Physical therapy is concerned with identifying and maximising quality of life and movement potential within the spheres of promotion, prevention, treatment or intervention, habilitation and rehabilitation. This encompasses physical, psychological, emotional, and social wellbeing. Physiotherapy is used to treat pain by using pain relieving methods such as interferential therapy, ultrasonic, short wave diathermy, wax therapy and muscle strengthening

exercises (Bellieni and Buonocore, 2009). Physiotherapy helps to restore movement and function when someone is affected by injury, illness or disability.

5. Importance of Physiotherapy

Physiotherapy profession has seen some significant advances and gained the recognition as a specialized field of medicine few decades ago. This practice has come a long way from the early employed heat, electrical stimulation and water-based applications to aid movement and function. Physiotherapy is the most commonly prescribed treatment to assist in the recovery of many injuries and conditions, chronic pain, car and sports injuries, and challenges with mobility can all be greatly improved with the use of Physiotherapy.

6. Benefits of Physiotherapy

Many benefits are available to the public through the widening scope of Physiotherapy. The profession mainly addresses orthopedic, neurological, cardiopulmonary and cardiac problems among infants, children adults and geriatric populations. Some of the orthopedic disorders treated are sports injuries, fractures, joint disorders, amputation, back and neck pain, arthritis and post-operative conditions. Orthopedic Physiotherapy takes place in a private practice, depending on the stage of the condition. Intervention involves therapeutic exercise to improve strength, range of motion and endurance, joint mobilization to reduce stiffness and modalities to relieve pain. An orthopedic patient is most likely to be trained in the use of an ambulation device to help restore or enhance movement (Glover, 1997).

Neurological disorders such as strokes, multiple sclerosis, cerebral palsy and spinal cord injury make up a great percentage of a Physiotherapist's caseload. A stroke patient may present with hemiplegia (paralysis on one side of the body), hemiparesis (weakness on one side of the body) abnormal muscle tone and neglect of one side of the body. Physiotherapy is valuable in correcting these issues or where necessary, in training the individual to compensate for these deficits. Interventions focus on muscle re-education, transfers, restoring and improving gait and training in the use of mobility aids (Miller *et al.*, 2010).

For children suffering from cerebral palsy, Physiotherapy is essential in helping to reduce spasticity and deformity, improve postural control, and train the child to use assistive devices and do all that is necessary to maximize the child's functional independence. Physiotherapy also educates the family so they can help to carryover what the child has learned during therapy sessions (Heathcock *et al.*, 2008).

Cardiopulmonary conditions respond well to Physiotherapy intervention. Patients, who have difficulty in performing their activities of daily living, shortness of breath and decreased endurance, can achieve markedly improved quality of life through guided exercise and resistance training. Intervention also includes counseling about risk factors, patient's education to prevent future recurrence and behavior modification. For those patients who have cardiac surgery, Physiotherapy is initiated early to prevent the patient from losing strength and function. Many patients, especially the elderly, become fearful after cardiac surgery. Proper training in getting in and out of bed, pushing up from a chair and walking can help the patient to regain confidence and set them on the road to recovery (Klinteberg, 1992; Schwingel *et al.*, 2009).

Physiotherapy is specifically designed to move and strengthen every joint. This means fitness and flexibility, therefore, the following benefits of Physiotherapy are achieved:-

- i. The work of a person goes faster and easier.
- ii. Persons avoid falls and injuries because of better posture and balance.
- iii. There is better control of risk factors with Physiotherapy that cuts risk of heart disease, stroke, diabetes and cancer (especially the type of breast cancer which is diagnosed after menopause).
- i. If any person falls sick or injure, he can recover much faster if is already active and mobile.
- ii. The mood and self-image get a boost.
- iii. About the network of friends any one builds up, Physiotherapy gets to make him more socializing.
- iv. Person becomes more aware and motivated to make healthy choices.

Physiotherapy has been shown to work through clinical studies and research, and it is a treatment upon which peoples can trust.

7. Protection of Title and Practice

Physiotherapy is a primary care, autonomous, client-focused health profession dedicated to improving quality of life by promoting optimal mobility, physical activity and overall health and wellness. The Physiotherapy profession is a self-regulated and recognized health profession in the world. Physiotherapists are primary care practitioners whereby clients may directly access their services. This practice has evolved to a high level of professional autonomy that is supported by legislation in all jurisdictions. Protection of title

and clarity of professional activity is considered important for the protection of the public (Canadian Physiotherapy Association, 2012).

8. Employment in Physiotherapy

Jobs related to Physical therapy have shown rapid growth in recent years, but employment rates and average wages may vary significantly between different countries, states, provinces or regions. Job duties requirements for Physical therapist, Technicians or Aides may vary country by country depending on the employer of states.

9. Conclusion

Physical therapy is an area of health responsible for promoting, developing, maintaining and restoring people's maximum movement and functional ability throughout their lives, Physical therapy is performed by a Physical therapist (PT) and sometimes services are provided by a Physical therapist assistant (PTA) acting under their directions. Physical therapy has many specialties, to name some of the more common areas, it includes cardiopulmonary, geriatrics, neurologic, orthopaedic and paediatrics. Each area of Physiotherapy intervention has its own specialized techniques and is based on scientific evidence. The techniques used in Physiotherapy have been evolved since the ancient times of history, and in today's complex world, there are even Physiotherapists specialized in just one area, and within that area they treat some specific diseases (stroke, traumatic knee injuries and incontinence). Physiotherapy is an essential participant in the healthcare delivery system, using its expertise in rehabilitation and movement science to enhance the physical function and mobility of individuals of all ages. It is a profession of highly educated, autonomous practitioners who function as clinicians, educators, scientists, consultants and administrators who practice in all healthcare environments, in the home, in the community, and in many businesses and organizations. Physical therapy is not only involved in providing the highest quality of care to individuals, but also is very active in promoting public health initiatives. The contents of this article provide general information for improving human health only and are not meant to replace a Physiotherapy or Medical consultation with other disciplines of health.

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