

Editorial**The role of Physical therapy-from bench to bedside and beyond****Humda Niaz¹**The Physiotherapy Clinic, RWP¹

The origin of physical therapy traces back to Hippocrates in the 15th century, who integrated physical movement with traditional and holistic medicine, attributing diseases to physical or mental dysfunction.¹ The evolution of physical therapy continued with Per Henrik Ling (1776-1839), a medical gymnast, who laid the foundation by combining exercise, massage, and manipulations to optimize functional performance in treating musculoskeletal injuries.²

The polio epidemic in the 19th century led to the introduction of the "Kenny method" by Australian nurse Elizabeth Kenny. The method involved dry heat, stretching exercises, and assisted exercises. It showed positive effects and achieving an 80% recovery rate.³ In 1925, the American Medical Association established physical therapy as a professional degree, leading to the formation of the American Physical Therapy Association.⁴ Over time, physical therapy expanded its scope, incorporating the Bobath treatment for neurological diseases, OMPT by Geoff Maitland, Robin McKenzie's Mechanical Diagnosis and Therapy (MDT) for spine-related issues, Brian Mulligan's Movement with Mobilization (MWM), and techniques developed by David Butler and Michael Shacklock for neural mobilization. The field has evolved with evidence-based approaches, introducing various techniques like soft tissue therapy, deep tissue friction massage, trigger point therapy, myofascial release, active release technique, and dry needling to address symptomatic causes reported by patients.

In the last two decades the field of physical therapy has undergone the process of urbanization. Newer domains have emerged that supplement the field of healthcare. Modern practices integrate electrotherapy and exercise regimen to provide rehabilitation interventions addressing biopsychosocial factors for individuals with physical and mental challenges, whether congenital, trauma-related, or age-related. Physical therapy is now an integral part of healthcare, offering specialized postgraduate degrees in areas such as Neuro-physiotherapy, Cardiopulmonary physical therapy,

Orthopedic physical therapy, pediatrics, musculoskeletal physical therapy, burn injuries, trauma injuries, women's health, sports, and oncology, aiming to decrease complications, accelerate recovery, and enhance overall quality of life.

The need for rehabilitation has exceeded in the last two decades. The evolving role of physical therapist in Global health is accredited by WHO, The World Health Organization (WHO) reports that approximately 63% of people globally require rehabilitation, with around 47 million individuals in Pakistan in need of such services. This indicates that one in five people in Pakistan is affected by a disabling condition, a trend exacerbated by the rise of non-communicable diseases. However, in middle-income countries like Pakistan, over 50% of people lack access to rehabilitation. Physical therapy is often recommended to a tertiary level of care for specific patient population. The Global Rehabilitation 2030 meeting in Geneva proposed integrating allied health professionals into the primary care workforce, offering competitive salaries and pathways for growth. To enhance rehabilitation, strategies include its incorporation into primary healthcare, workforce development, advocacy, awareness, research provision, and education on preventive rehabilitation strategies for the affected population during healthcare emergencies, aiming to reduce disability, prevent complications, and optimize recovery. The therapeutic alliance⁵ between patients and therapists is a crucial aspect of physical therapy, extending beyond exercise regimens to encompass psychosocial elements. The patient's active engagement is key to efficient recovery, and their satisfaction serves as an indicator of overall service quality and treatment efficacy. Patients express satisfaction in various aspects of physical therapy, including accessibility, clinic environment, therapist's care, clear explanations of treatment, and respect for autonomy and privacy. These factors not only influence patient referrals but also contribute to their overall satisfaction with the treatment protocol.

The future of physical therapy is marked by significant advancements, driven by a growing demand for systematic functional evaluations and increasing patient awareness of their physical conditions. The profession's growing autonomy allows for direct patient referrals to physical therapy departments, with patients recognizing the importance of regular functional assessments. Telehealth has expanded access to physical therapy through remote consultations, facilitated by advancements like motion analysis systems for precise measurements of physical dysfunction. Integration of technology, including wearable sensors and virtual reality, is reshaping rehabilitation, providing interactive environments and alternative non-pharmacologic approaches to analgesia. Robotics in rehabilitation goes beyond assessment, offering comprehensive interventions with dynamic adjustments based on real-time feedback, enhancing the precision and effectiveness of therapy. Precision rehabilitation⁶ is a newly introduced term in conjunction with precision medicine, It has the potential to improve patient outcomes, increase the efficacy of rehabilitation interventions, promote tailored and patient-centered approach to healthcare. In conclusion, the Physical rehabilitation is integral to comprehensive healthcare, emphasizing the importance of movement in life. The rapid progress in physical therapy has shifted the health paradigm towards movement medicine, positively impacting patients' perspectives and making them feel heard and acknowledged. Physical therapy not only changes patient perceptions but also plays a crucial role in reducing healthcare inequalities through interdisciplinary collaboration, promoting equitable access to rehabilitation for individuals of all ethnicities and abilities.

References:

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