

## “The End of Physiotherapy: Myth or Reality?”

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### ABSTRACT

Physiotherapy is a crucial healthcare profession that focuses on restoring and maintaining physical function, mobility, and overall well-being. Despite speculation about the future of physiotherapy in the face of technological advancements, this review article critically examines the field's current state. It explores technology integration, emphasizing the human touch's essential role in healthcare. Physiotherapy encompasses various interventions to improve physical function and quality of life, addressing musculoskeletal, neurological, and respiratory conditions. Physiotherapists collaborate with other healthcare professionals to provide comprehensive care and enhance patient outcomes. Technological advancements in physiotherapy, such as telehealth, wearable devices, virtual reality, and robotics, can improve assessment, treatment, and patient engagement. However, the human touch, physical assessment, manual techniques, and therapeutic relationship remain integral to the profession.

The future of physiotherapy lies in integrating technology as a complementary tool, expanding access to services, and maintaining a balance between technological advancements and the essential elements of the profession. By embracing technology thoughtfully, physiotherapists can optimize patient care, improve outcomes, and deliver holistic, patient-centered care. The ongoing evolution of physiotherapy will rely on integrating technological advancements while upholding the profession's core principles and values.

### Keywords:

Physiotherapy, Healthcare profession, Technological advancements, Human touch, Patient-centered care

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## INTRODUCTION

Physiotherapy is a healthcare profession that promotes, restores and maintains physical function, mobility, and overall well-being. Physiotherapists are highly skilled professionals who undergo extensive anatomy, physiology, and biomechanics training. They employ various techniques, including manual therapy, exercise prescription, electrotherapy, and patient education, to assess and treat individuals with musculoskeletal, neurological, and respiratory conditions.

In recent years, there has been speculation and debate surrounding the future of physiotherapy. Some individuals and industry observers have questioned whether technological advancements and emerging treatment modalities could render physiotherapy obsolete. The rise of telehealth, wearable devices, virtual reality, and robotics has led to discussions about how these innovations could replace or diminish the role of physiotherapists.<sup>1, 2</sup>

This review article aims to critically examine the notion of “The End of Physiotherapy” by analyzing the current state of the field, exploring technological advancements, discussing the essential role of the human touch in healthcare, and considering potential future directions.

### The Current State of Physiotherapy

Physiotherapy encompasses various interventions to improve physical function and quality of life. It involves assessing, diagnosing, and treating individuals with movement impairments or functional limitations due to injury, illness, or disability. Physiotherapists employ evidence-based practice to develop individualized treatment plans, considering the patient’s medical history, physical capabilities, and goals. They utilize a holistic approach, addressing the physical symptoms and the psychological and social aspects of the patient’s well-being.<sup>3</sup>

Physiotherapy is vital in managing and rehabilitating numerous conditions across different age groups. In musculoskeletal care, physiotherapists treat acute injuries, chronic

pain, and post-surgical rehabilitation. They provide exercises, manual therapy, and education to improve joint mobility, strength, and flexibility. In neurological rehabilitation, physiotherapy aids individuals with conditions such as stroke, spinal cord injuries, and multiple sclerosis, focusing on improving balance, coordination, and motor function. Physiotherapists also contribute to cardiovascular and respiratory care, assisting patients with heart and lung conditions through exercise programs, breathing techniques, and endurance training.

Physiotherapists frequently collaborate to deliver comprehensive patient care. They work closely with physicians, surgeons, nurses, occupational therapists, and speech therapists to develop integrated treatment plans that address the multifaceted needs of individuals. Collaborative care ensures patients receive a holistic approach, benefiting from medical interventions, pharmacological management, and physiotherapy techniques. Interprofessional collaboration facilitates effective communication, knowledge sharing, and a coordinated strategy to maximize patient outcomes.

The current state of physiotherapy highlights its importance as a critical component in healthcare delivery. Physiotherapists contribute to managing and treating various conditions, addressing physical impairments and functional limitations. Their expertise and collaboration with other healthcare professionals enhance the overall quality of patient care. Despite technological advancements and emerging treatment modalities, physiotherapy remains a critical profession in the healthcare continuum, promoting physical well-being and improving the lives of countless individuals.<sup>4</sup>

### Technological Advancements in Physiotherapy

Technological advances have revolutionized healthcare, introducing innovative tools and solutions to improve patient care, diagnostics, and treatment outcomes. These advancements

have also made their way into physiotherapy, offering new opportunities for assessment, treatment, and patient engagement.<sup>5</sup>

**Integration of technology in physiotherapy practice includes:**

1. *Telehealth and remote consultations:* Telehealth has emerged as a valuable platform in physiotherapy practice, allowing for remote consultations between physiotherapists and patients. Through videoconferencing and secure online platforms, physiotherapists can assess, diagnose, and guide patients from a distance. Telehealth enables access to physiotherapy services for individuals in remote areas, those with limited mobility, or those unable to visit a clinic in person. It also promotes convenience, reduces travel time, and increases patient engagement.<sup>6-8</sup>
2. *Wearable devices and their impact on assessment and treatment:* Wearable devices, such as activity trackers, biosensors, and smart garments, have gained popularity in recent years. These devices monitor physiological parameters like heart rate, sleep, and movement. In physiotherapy, wearable devices provide objective data that can assist in assessing patients' progress, adherence to exercise programs, and overall physical activity levels. This data helps physiotherapists tailor treatment plans and provide personalized recommendations for optimizing rehabilitation outcomes. Additionally, wearable devices can promote patient self-management, motivation, and empowerment by providing real-time feedback and tracking progress.<sup>9-10</sup>
3. *Virtual reality and robotics in motor rehabilitation:* Virtual reality (VR) and robotics offer exciting possibilities in motor rehabilitation. VR technology provides immersive and interactive environments that can be used to simulate real-life activities and exercises. It engages patients in enjoyable and meaningful experiences while facilitating motor learning, balance training, and functional rehabilitation. Robotics, such as exoskeletons

or robotic-assisted devices, can provide assistance or resistance during movement, allowing patients to practice and regain motor control. These technologies offer precise measurement and real-time feedback and can be adjusted to individual needs, enabling targeted and progressive rehabilitation.<sup>(11, 12)</sup>

The Integration of technology in physiotherapy practice enhances patient care, assessment, and treatment outcomes. Telehealth expands access to physiotherapy services, wearable devices provide objective data for personalized interventions, and virtual reality and robotics offer innovative and engaging rehabilitation experiences. However, it is crucial to strike a balance, ensuring that technology complements and augments the essential elements of physiotherapy, such as hands-on assessment, manual therapy, and the human touch. The judicious use of technology alongside the expertise of physiotherapists can contribute to more efficient, effective, and patient-centered care.<sup>13</sup>

**The Role of Human Touch in Healthcare**

**A. The unique skills and expertise of physiotherapists:**

Physiotherapists possess unique skills and expertise that set them apart in healthcare. Their extensive training in anatomy, physiology, and biomechanics equips them with a deep understanding of the human body and its movement patterns. This knowledge allows them to perform accurate assessments, identify impairments, and develop targeted treatment plans. Physiotherapists are skilled in palpation, using their hands to feel and assess tissue texture, muscle tone, joint mobility, and other physical characteristics. This tactile sensitivity enables them to detect subtle changes, identify areas of dysfunction, and tailor interventions accordingly.

**B. Importance of physical assessment and manual techniques:**

Physical assessment is a fundamental aspect of physiotherapy practice. Through hands-on examination, physiotherapists can gather valuable information about a patient's

condition, including the range of motion, muscle strength, joint stability, and tissue integrity. Manual therapy techniques, such as joint mobilization, soft tissue massage, and myofascial release, are integral to physiotherapy interventions. These techniques restore joint function, reduce pain, and promote tissue healing. Skilled manual therapy addresses physical impairments, enhances circulation, reduces muscle tension, and stimulates the body's natural healing mechanisms.

### **C. Therapeutic relationship and its impact on patient outcomes:**

The therapeutic relationship between physiotherapists and their patients is vital to healthcare outcomes. Physiotherapists foster a professional and empathetic connection with their patients, building trust, rapport, and effective communication. This relationship creates a supportive environment where patients feel comfortable sharing their concerns, goals, and progress. The trust and rapport established between a physiotherapist and their patient promote active engagement in the rehabilitation process, leading to better adherence to treatment plans and improved outcomes. Furthermore, physiotherapists' emotional support, encouragement, and education contribute to patients' well-being and empowerment.

The human touch in physiotherapy is an essential element that technological advancements cannot replace solely. Physiotherapists' unique skills, physical assessments, and manual techniques allow for a comprehensive evaluation and individualized treatment. The therapeutic relationship between physiotherapists and their patients fosters trust, open communication, and patient engagement, significantly impacting treatment outcomes. While technology can augment and enhance physiotherapy practice, the human touch remains irreplaceable in providing compassionate, holistic care to individuals.<sup>14</sup>

### **Debunking the Myth: The Future of Physiotherapy**

#### **A. Integration of technology as a complementary tool:**

Contrary to the speculation about the end of physiotherapy, the future of the field lies in the integration of technology as a complementary tool rather than a replacement. Technology has the potential to enhance the capabilities of physiotherapists, allowing for more accurate assessments, personalized interventions, and improved patient outcomes. By embracing technological advancements, physiotherapists can leverage tools such as telehealth, wearable devices, virtual reality, and robotics to augment their practice. These technologies provide additional data, enable remote consultations, offer engaging rehabilitation experiences, and facilitate precise measurements. By integrating technology thoughtfully and purposefully, physiotherapists can optimize their ability to deliver high-quality care and achieve better outcomes.

#### **B. Expanding access to physiotherapy services through technology:**

One of the significant advantages of technology in physiotherapy is its potential to expand access to services. Telehealth platforms enable physiotherapists to reach patients in remote or underserved areas, providing necessary care without the constraints of geographical boundaries. Remote consultations allow for regular monitoring, follow-ups, and ongoing support, enhancing continuity of care. Additionally, technology enables self-management and home-based exercises through smartphone applications or online platforms, empowering patients to participate actively in rehabilitation. By leveraging technology, physiotherapists can break down barriers to access and provide care to a broader population, ultimately improving public health outcomes.

#### **C. Balancing technological advancements with the essential elements of physiotherapy:**

While embracing technology, it is crucial to maintain a balance with the critical elements of physiotherapy. The human touch, physical assessment, manual techniques, and the therapeutic relationship remain integral to the practice. Despite the benefits of technology,

physiotherapists should continue to prioritize hands-on examination, palpation, and manual interventions as they provide unique insights and therapeutic benefits that cannot be replicated by technology alone. The personalized and empathetic approach, tailored treatment plans, and patient-centered care should remain at the core of physiotherapy practice. Technology should be used as a tool to enhance and complement these essential elements rather than overshadow or replace them. By striking a balance between technology and the

human touch, physiotherapy can evolve and adapt to the changing landscape of healthcare while staying true to its core principles.

The future of physiotherapy lies in integrating technology as a complementary tool, expanding access to services, and striking a balance between technological advancements and the essential elements of the profession. By thoughtfully leveraging technology, physiotherapists can enhance their practice, improve patient outcomes, and deliver holistic, patient-centered care. The ongoing evolution of physiotherapy will rely on the ability to embrace and integrate technological advancements while upholding the core values and skills that make the profession invaluable in the healthcare ecosystem.<sup>15-16</sup>

### CONCLUSION

Physiotherapy is an indispensable healthcare profession that promotes physical function, mobility, and quality of life. Physiotherapists possess unique skills and a holistic approach, contributing significantly to patient care. While technology offers new opportunities, it should complement rather than replace essential elements of physiotherapy. By integrating technology thoughtfully, physiotherapists can leverage advancements in telehealth, wearable devices, virtual reality, and robotics to expand access and provide personalized care. Proactive preventive care and chronic disease management approaches enhance the

profession's impact. The future of physiotherapy is promising, with growth, innovation, and improved outcomes.

Embracing technology while upholding core values ensures continued impact on individuals' lives and public health.

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