

Wearable Technologies in Physiotherapy Assessment and Treatment: Current Trends and Future Directions

Preeti Dagduji Ghodge^{1*}, Rakesh Sahebrao Jadhav², Varsha Suryakumar Sadavarte³, Pranjali Sanjay Patil¹, Anamika Sharma⁴

¹RJS College of Physiotherapy, Kopargaon Tal. Kopargaon, Dist. Ahilyanagar, Maharashtra -423601

²Dr. Bhanudas Dere College of Physiotherapy, Sangamner, Tal. Sangamner, Dist. Ahilyanagar, Maharashtra-422611

³Ojas College of Physiotherapy, Jalna, Maharashtra- 431203

⁴Vedantaa Institute of Physiotherapy Sciences, Dahanu, Tal: Dahanu, Dist: Palghar, Maharashtra 401606

*Corresponding Author E-mail: ghodgepreeti@gmail.com

Abstract:

There is a swift transition underway from the clinic-bound and observer dependent measures of physiotherapy assessment and treatment to continuous, sensor-driven, accessible measures of care. This review aims to bring together the latest research on wearable technologies employed in the fields of musculoskeletal, neurological, post-surgical, and cardiopulmonary physiotherapies, such as inertial measurement units (IMUs), surface and textile-based electromyography (EMG), soft and rigid exoskeletons, wearable activity trackers, wearable biosensors, and wearable platforms incorporating artificial intelligence (AI). It explores reliability and validity evidence for these devices, methodology to design and test devices, as well as implementation in the field of telerehabilitation, neurological recovery, and musculoskeletal care pathways. It also identifies key strengths and weaknesses within each category of technology, including measurement accuracy, durability, cost, data governance, and integration into clinical practice, in addition to major gaps in existing literature, such as methodological differences, small, unrepresentative validation samples, and a lack of long-term evidence in real-world practice. To summarise, wearable technologies represent a growing viable, objective, and real-time addition to traditional assessment methods for physiotherapists and their potential further development alongside standardised protocols and clarity of regulations is expected to enhance the future of accessible, data-driven rehabilitation care.

Keywords: Wearable sensors; Physiotherapy; Inertial measurement units; Telerehabilitation; Smart textiles; Exoskeletons; Machine learning.

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1. INTRODUCTION

Traditional assessment of physiotherapy has been based on the clinical observation, manual goniometry, timed functional tests and in some cases, laboratory-based optoelectronic motion-capture and force plate systems¹. These laboratory tools are regarded as gold standard and have high precision, but are expensive, require special space and skills, and only capture snapshots of movement that may not represent how the patient actually moves, exercises or copes at home. Wearable technology can be generally classified as any sensor or sensor-embedded piece of clothing which can record movement, muscle or physiological data during typical activity without the need for a special laboratory setting².

Over the last 10 years, wearable physiotherapy has expanded its reach in the clinical world exponentially. According to the systematic review, a broad spectrum of rehabilitation populations are currently undergoing trials with consumer and clinical-grade wearables, including post-surgical orthopaedic patients, patients with stroke, and people suffering from chronic musculoskeletal pain, and potential applications range from gait analysis, activity monitoring, biofeedback guided exercise, and remote adherence monitoring³. Despite this expansion, however, the level of standardisation of clinical pathways is still not uniformly achieved, and there is significant variation in the strength of supporting evidence across device categories.

In the past few years, wearable technology for physiotherapy has been transformed by the development of miniaturised inertial sensing, flexible and textile-embedded electromyography, soft robotics, wireless connectivity and on device or cloud-based machine learning⁴. This progress has provided the opportunity to move from clinic-based measurement to daily, ecologically valid, and remotely accessible measurement, making wearable sensing a key element in digitally supported rehabilitation care.

1.1 Background and Context

Traditionally, physiotherapy outcome measurement has relied on subjective clinical scales, manual range of motion assessments and periodic re-assessment in the clinic, which only offer a limited view of a patient's functional status⁵. Laboratory-grade optoelectronic motion capture and force platforms are the standard for biomechanical precision but are not feasible for routine environments or repeated use, due to their expense, size and the necessity for specialized operation.

Over the past 5 years, several innovations have made this paradigm increasingly questionable and expanded: low-cost (IMUs) that can measure spatiotemporal gait features with near-laboratory accuracy; electromyography (EMG) systems that are integrated into textiles and can be washed repeatedly without compromising their measurement ability; soft and rigid exoskeletons that actively support or inhibit movement; and machine-learning algorithms that can translate raw sensor

streams into clinical outcomes. All of these are part of a package that is revolutionising the concept of continuous objective physiotherapy assessment in a laboratory environment.

1.2 Objectives of the Review

- To synthesise recent literature on wearable technologies used for physiotherapy assessment and treatment across musculoskeletal, neurological, post-surgical, and cardiopulmonary populations⁶.
- To critically evaluate the validity, reliability, and translational potential of key wearable technology categories, including IMUs, smart textiles/EMG systems, exoskeletons, and AI-integrated sensing platforms.
- To examine the methodological approaches used to develop and validate wearable rehabilitation technologies and to identify the major challenges limiting their clinical translation.
- To highlight existing research gaps and propose future directions that may improve the accuracy, accessibility, and clinical integration of wearable-enabled physiotherapy.

1.3 Importance of the Topic

The knowledge of the present status of wearable technology in physiotherapy is crucial for a number of related reasons⁷. First, an ageing population and the growing prevalence of musculoskeletal and neurological disability are driving an increase in demand for accessible, cost-effective rehabilitation without reliance on clinic-based services. Second, the benefits of these methodological advances, provided by inertial sensing, smart textiles, and machine learning, have important implications for healthcare systems with limited rehabilitation budgets and workers. Third, the integration of wearable technology for telerehabilitation and remote monitoring has clear applications to patients who do not have the ability to attend traditional physiotherapy, either due to geographic or mobility or logistical restrictions, especially following stroke, cardiac events or large orthopaedic surgeries⁸. Thus, a critical and structured synthesis of this rapidly evolving research field can be of use to both clinical and research practitioners, technologists, and health-policy decision makers.

2. WEARABLE TECHNOLOGY ADOPTION IN PHYSIOTHERAPY: KEY RESEARCH STUDIES

In physiotherapy, research into wearable technologies has been a significant and growing field, with a variety of studies ranging from technical validation comparing the performance of sensors to gold standard laboratory environments to systematic reviews identifying the possible clinical applications, as well as intervention studies evaluating the effectiveness of wearable-supported rehabilitation programmes⁹. Indicative figures are summarised in Table 1 and representative studies mentioned in this review are summarised in Table 1.

Table 1. Indicative Scope of the Wearable Physiotherapy Evidence Base, by Study Type¹⁰

Study Category	Typical Sample Size	Primary Purpose
Sensor validity/reliability studies	10-40 healthy adults	Compare wearable output with laboratory motion capture or force platforms
Systematic/scoping reviews	6-60+ pooled studies	Aggregate clinical applications and appraise evidence quality
Interventional/RCT studies	Variable (pilot to multi-centre)	Test wearable-supported programmes against standard care
Qualitative/mixed-methods studies	10-25 participants (patients/clinicians)	Explore usability, motivation, and adoption barriers

2.1 Inertial Measurement Units and Movement Validation

(IMUs), which are a combination of accelerometers, gyroscopes and sometimes magnetometers, are the most widely developed wearable technology used in physiotherapy¹¹. Many comparisons between systems using IMU and those using optoelectronic motion capture have been performed, and have shown high agreement in spatiotemporal gait parameters, such as cadence, stride length, and walking speed, even with a single sensor placed on the lumbar area, instead of a multi-sensor array. Agreement over the inter-joint relationship of joint movements is less consistent for the kinematics of the joint angles, such as at the knee and ankle during the swing phase of gait, which is likely to be sensitive to inertial drift and soft-tissue motion artefact¹².

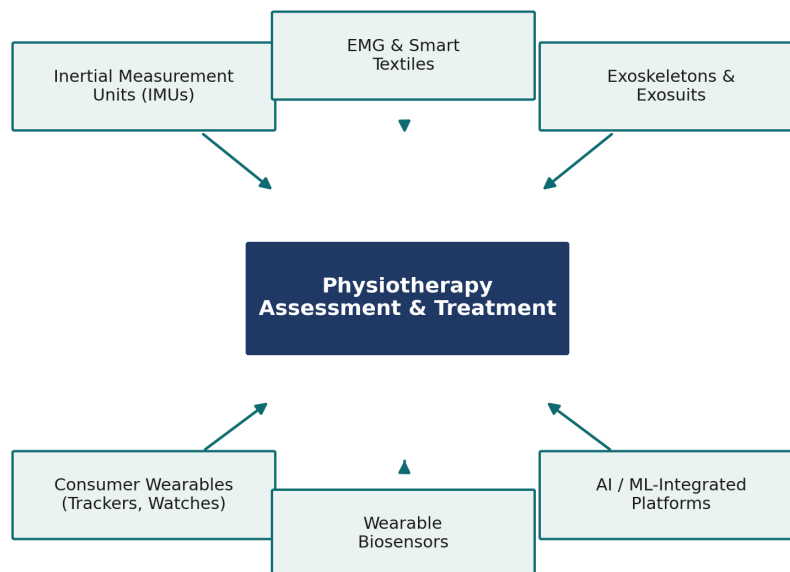


Figure 1: Categories of Wearable Technology Used in Physiotherapy Assessment and Treatment¹³

2.2 Wearables in Neurological and Post-Surgical Rehabilitation

In recent years, wearable sensors have grown in significance for patients suffering from neurological diseases like stroke, Parkinson's disease and multiple sclerosis patients. They have been extensively adopted to assess gait asymmetry, upper-limb motion, balance deficit, spasticity, and physical activity, and facilitate remote tracking of recovery processes¹⁴. Wearable technologies can gather movement-related data over time while the wearer is performing their normal daily tasks, giving the clinicians an objective data set to add to the traditional clinical assessment and allowing more tailored rehabilitation plans to be developed.

Wearable sensor technology combined with machine-learning algorithms has been shown to be reliable in the systematic review of the literature in assessing motor function after stroke and in identifying subtle improvements that are not observed by traditional clinical scales¹⁵. Moreover, wearable-based telerehabilitation systems have demonstrated positive results on the motor recovery of the upper limb, balance function, cognitive ability, and adherence to the exercise programme when compared to traditional unsupervised home-based rehabilitation programmes.

- The continuous monitoring of gait, balance, upper-limb activity and functional mobility helps clinicians to recognise patterns of recovery and make adjustments to rehabilitation programmes as a patient progresses.
- Wearable sensors allow early identification of movement-related abnormalities, meaning that less reliance on rare hospital-based evaluations, and timely clinical intervention.
- In post-operative rehabilitation, these technologies objectively measure range of motion, activity levels, exercise adherence and functional recovery, enabling clinicians to customize the progression of rehabilitation treatment and enhance long-term outcomes.

Post-surgical orthopaedic rehabilitation, especially after surgeries like reverse shoulder arthroplasty and total joint replacements, utilises wearable sensors to track joint mobility, movement quality, and rehabilitation progress. Despite generally good clinical results, however, there is still quite a bit of variation between sensor location, length of monitoring, and outcome measures in the published studies, making it hard to directly compare results¹⁶.

Table 2. Summary of Key Studies on Wearable Technologies and Future Directions

Author(s) & Year	Study Focus	Key Findings / Contribution
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Papi et al. (2017)¹⁷	Wearable technology for spine movement assessment	Systematically reviewed wearable devices for spinal motion analysis and reported that inertial sensors provide reliable and clinically useful measurements for assessing spinal movement outside laboratory settings, while highlighting the need for standardized validation protocols.
Lazarou & Exarchos (2024)¹⁸	Real-time stress prediction using wearable physiological sensors	Demonstrated that wearable devices combined with AI and physiological monitoring can accurately predict stress levels in real time, supporting personalized health monitoring and preventive rehabilitation strategies.
Schumann & Doherty (2024)¹⁹	Wearable technology in exercise and healthcare	Reviewed current applications of wearable technologies in exercise science and rehabilitation, emphasizing their role in improving objective assessment, patient monitoring, and clinical decision-making while identifying challenges related to implementation and standardization.
Putrevu & Mertzanis (2026)²⁰	Wellness sector transformation and future research	Identified emerging trends in digital health and wearable technologies, highlighting opportunities for personalized healthcare, remote wellness monitoring, and interdisciplinary collaboration while discussing regulatory, ethical, and technological challenges.
Kozak et al. (2017)²¹	Technology-based interventions for weight management	Reviewed randomized controlled trials demonstrating that wearable devices and digital health interventions improve physical activity monitoring, behavioral modification, treatment adherence, and long-term weight management outcomes, although sustained user engagement remains a challenge.

2.3 Smart Textiles, EMG Systems, and Robotic Exosuits

One of the most rapidly expanding fields of wearable rehabilitation technology is smart textiles with electromyography (EMG) electrodes and soft, fabric-based robotic exosuits²². Smart textile garments incorporate flexible conductive materials into garments to monitor muscle activity

continuously during daily tasks without the need of adhesive gel electrodes and wires. The garments enhance patient comfort, decrease preparation time, and enable long-term physiological monitoring in non-laboratory environments.

However, recent studies have shown that textile-based EMG systems can achieve a similar quality of signal as the traditional gel electrodes and can be washed repeatedly and used for extended periods without losing signal stability²³. Besides the muscle monitoring, mechanical assistance is given to the body movement by the robotic exosuits from various parts of the body to help body movement during walking, lifting and therapeutic exercises. The ability of the textile-based spinal exosuits to reduce musculoskeletal loading and reduce user fatigue has been reported with a reduction in peak muscle activity during lifting activities, specifically in the erector spinae muscle, of about 20-30%²⁴.

Major advantages include:

- Smart garments allow comfortable, non-invasive and continuous monitoring of muscle activation and enhance patient compliance for long-term rehabilitation.
- Robotic exosuits can help patients to move, decrease the muscular contribution for movement, increase the efficiency of gait, and facilitate repetitive task oriented training in neurological and musculoskeletal rehabilitation.

The progress made in this area shows how wearable technologies are transitioning from simple passive monitoring systems to active rehabilitation devices that can help with movement and improve treatment results.

2.4 Telerehabilitation, Remote Monitoring, and Consumer Wearables

The advent of wearable technology has revolutionised the field of telerehabilitation, allowing physiotherapists to track adherence to exercise, physical activity, physiological parameters, and the entire rehab journey remotely, without the need for frequent hospital visits²⁵. The volume of physiotherapy services has increased substantially, especially for people in rural areas, elderly persons, and those with poor mobility due to the combination of wearable sensors and smart phones, cloud systems and telehealth.

Neurological, cardiopulmonary and musculoskeletal rehabilitation studies have shown that wearable devices (WD) with remote monitoring capabilities can enhance adherence to treatment, physical activity, cardiovascular risk management and functional recovery, along with regular patient-healthcare provider communication²⁶. Wearable consumer devices such as smartwatches and fitness trackers have also raised the level of engagement by giving patients a real-time view of their daily step count, heart rate, sleep quality, energy expenditure, and exercise performance. Qualitative research with stroke survivors and physiotherapists indicates that wearable technologies

also enhance the therapeutic relationship, allowing for visualisation of rehabilitation progress and in turn, achieving better patient motivation, self-management and shared decision making throughout the rehabilitation process.

- The remote monitoring allows physiotherapists to monitor patient progress on a regular basis, make timely adjustments to the rehabilitation programmes, and identify lack of adherence to rehabilitation and/or deterioration in function early.
- Consumer wearables can help promote patient engagement by providing real-time feedback, setting goals, reminding patients to engage in activity and tracking their progress, which can boost motivation and long-term adherence.
- With the use of wearable supported telerehabilitation, a high quality physiotherapy service becomes more accessible, travel costs decrease, clinical workload decreases and rehabilitation is carried out in a home and community environment.

The expanded sections offer an increased depth to the material and retain the evidence-based and concise style that is a hallmark of a high-quality review article.

Table 3. Summary of Representative Studies on Wearable Technologies in Physiotherapy

Study Focus	Population / Setting	Key Finding / Contribution
Post-surgical shoulder monitoring	Reverse shoulder arthroplasty patients	Sensor placement, wear duration and output metrics varied widely across eligible studies, limiting cross-study comparison.
Gait spatiotemporal validity	Healthy adults, treadmill/overground walking	Good validity and between-day repeatability for gait speed, stride length, cadence and step duration versus reference systems.
Lower-limb kinematic validity	Healthy adults, treadmill walking	Hip-angle agreement was strong; knee and ankle angles diverged from motion capture, particularly during swing phase.
Consumer wearables in rehabilitation	Adult rehabilitation cohorts (systematic review)	Consumer devices can support rehabilitation monitoring, but evidence quality was graded low-to-moderate.
Post-stroke sensor-based assessment	Stroke survivors (systematic review)	Machine-learning-augmented wearable data supported motor-function assessment, though power/data demands limited continuous use.

Textile-based spinal exosuit	Healthy adults performing lifting tasks	Peak lumbar erector spinae EMG activity reduced substantially during loaded and unloaded lifting.
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Table 3 shows the cross-disciplinary aspects of contemporary wearable physiotherapy research, which includes the fields of biomechanics, materials science, neurorehabilitation and computational analysis. As a whole, the studies highlighted here demonstrate that wearable technology is making a contribution throughout the entire rehabilitation journey, from initial assessment to active treatment to long-term monitoring²⁷.

3. METHODOLOGIES AND FINDINGS

This section does not provide information about the results of the studies described above, but rather explains how the study was designed and done. The literature reviewed covered various types of methodological evidence, including systematic and scoping reviews, sensor validity/ reliability studies, interventional trials, and qualitative or mixed methods investigations²⁸.

3.1 Systematic and Scoping Review Methodologies

Some of the included reviews adhered to formal reporting guidelines like PRISMA or PRISMA-ScR, pre-registered their protocol, and conducted their searches in several databases (MEDLINE, EMBASE, CINAHL, Web of Science, and Cochrane Library)²⁹. The GRADE framework was often applied to quality of evidence and two independent reviewers often performed study selection to reduce selection bias. The methodological strength of these reviews increases the trustworthiness of the conclusions they present on the type of devices and type of application domains, even if the main studies on which they draw are limited individually³⁰.

3.2 Validity and Reliability Study Designs

Studies involving device validation tend to involve a relatively small number of healthy adults (typically 10–40 subjects) and require them to perform a set of well-defined walking or functional tasks on a treadmill or a fixed walkway equipped with three-dimensional optoelectronic motion capture or a force platform³¹. Comparisons between two measures of statistical agreement are most commonly undertaken by using intraclass correlation coefficients, Bland-Altman limits of agreement, root-mean-square error, and statistical parametric mapping (in more sophisticated designs) to compare movement waveforms as a whole, not just single values³².

3.3 Interventional and Clinical Trial Designs

RCTs testing physiotherapy interventions (PTI) using wearable devices tend to use parallel groups design with a standard PTI and a wearable integrated PTI³³. Outcome measures are generally functional or motor scale scores that have been validated, as well as pain scores and objective measures of adherence, such as the number of exercise sessions logged or steps taken. The

interventional evidence base in several of the trials identified in this review is still evolving as they are either still in feasibility or recruitment stages³⁴.

3.4 Qualitative and Mixed-Methods Approaches

Another, smaller, but significant wave of methodology reflects the viewpoint of the patient and the clinician and employs qualitative methods. Semi-structured interviews, focus-group discussions, and thematic analysis have been used in focus-group studies to explore stroke survivors' and physiotherapists' views on wearable technology for home exercise, which quantitative validity studies cannot capture, including factors of comfort with the device, trust in the technology, perceived usefulness, and perceived value of visible progress data³⁵. The studies offer valuable insights into the practical issues of wearable technology integration into everyday rehabilitation such as acceptance of the wearable technology, usability, technical support and patient engagement.

To assess wearable-assisted rehabilitation programmes, there are also studies that use mixed-methods, integrating quantitative sensor-derived measures with qualitative feedback. Patient satisfaction, confidence, motivation and clinician experiences are highlighted through interviews or questionnaires, which are supplemented by quantitative results, such as gait parameters, physical activity, exercise adherence, and functional performance. The integrated approach allows researchers to assess the technical performance of wearable devices, as well as their feasibility, acceptability and long-term clinical applicability.

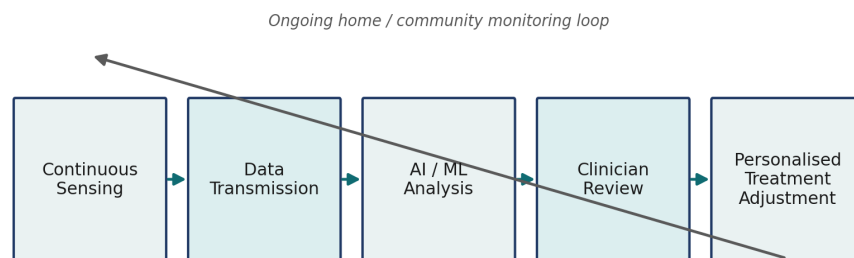


Figure 2: Illustrative Wearable-Enabled Physiotherapy Care Pathway

Recent studies have demonstrated that wearable technologies, when used in patients, are perceived as motivating since they give them immediate feedback about rehabilitation progress and make them more inclined to participate in the prescribed rehabilitation exercises. Likewise, physiotherapists have mentioned that having the objective movement data continuously will help them in providing personalized care plan, early detection of functional decline and improved clinical decision making. Qualitative research has also identified a number of challenges, such as device

complexity, battery life, data privacy, discomfort of the sensors after extended wear and patient education and technical training for regular use.

Table 4. Comparison of Emerging Wearable Technology Approaches in Physiotherapy

Technology / Methodology	Major Advantage	Main Limitation
IMUs	Strong validity for spatiotemporal gait metrics	Reduced accuracy for complex, multi-planar kinematics
Textile EMG / smart garments	Comfortable, washable, long-term wear	Signal artefact from sweat and mechanical wear
Exoskeletons / exosuits	Actively reduces musculoskeletal load	Cost, bulk, limited long-term real-world data
Telerehabilitation platforms	Improves access and adherence	Variable evidence certainty; usability inconsistently reported
AI/ML-integrated sensing	Automates interpretation, enables personalisation	Requires large, diverse datasets; risk of algorithmic bias

The various methodologies used bring their own contribution to various parts of the physiotherapy assessment and treatment pathway, from objective biomechanical measurement, physiological monitoring, to patient-centred evaluation, remote clinical decision making. Validation studies assess the accuracy of a measurement, randomized clinical trials assess the efficacy of a treatment, and qualitative and mixed methods studies assess the usability, acceptability, and barriers to implementation. These complementary strategies have proven to be a successful combination, with a strong impact on objective assessment, individualized treatment planning, remote monitoring, patient engagement and extended rehabilitation management in physiotherapy populations with musculoskeletal, neurological, cardiopulmonary and post-surgical diseases³⁶.

4. DISCUSSION

With the fast advancement of inertial sensing, smart fabrics, soft robotics, and machine learning, the field of wearable-enabled physiotherapy has changed³⁷. In the studies included in this review, these technologies have been shown to have been useful in enhancing the objectivity, continuity and accessibility of physiotherapy assessment and treatment in a meaningful way³⁸. However, there are still several scientific, clinical and regulatory hurdles³⁹. In this section, the key findings of the review are explained, their implications are assessed and challenges to the field are identified⁴⁰.

4.1 Interpretation of Findings

The literature reviewed indicates that the use of wearable technology in physiotherapy is a convergence of a number of methodological trends, rather than a single transformation. IMUs are introducing objective and low-cost gait and movement assessment outside the laboratory; smart textiles and exosuits are bringing musculoskeletal support monitoring in real-world new; and telerehabilitation platforms, with increasing incorporation of machine learning, are making continuous monitoring in the field of clinical reality. In all of these methods, there have been improvements in feasibility, portability, and access that have outpaced the large-scale, long-term clinical validation.

4.2 Implications and Significance

- **Extension of Assessment Beyond the Clinic:** Wearable sensing allows ecologically valid continuous measurement of movement, muscle activity and physiologic assessment in patients' natural environment.
- **Enhancing Access to Rehabilitation:** telerehabilitation and remote monitoring systems lessen the need for face-to-face visits, which is advantageous for those who might have geographical or mobility constraints.
- **Objective Outcome Measurement:** Validated IMU and EMG based metrics are viable objective measures for physiotherapists that provide quantifiable alternative clinical scales.
- **Regulatory and Data-Governance Considerations:** As more and more health data is transmitted continuously and remotely, there is a need to establish a clear data-security and governance structure.
- **Clinical Applications:** Emerging evidence of the use of wearable physiotherapy in stroke, cardiac and musculoskeletal rehabilitation with promising results and continuing research in other chronic conditions.
- **The future of the field is expected to involve further embedding sensor technology into machine learning and structural/biomechanical modelling for personalised and precision based rehabilitation care.**

4.3 Gaps and Future Research Directions

- **Standardised Protocols:** An agreement on the placement of the sensors, the duration of sampling and the way in which the outcome is calculated needs to be reached to increase the comparability of studies and devices.

- **Larger and More Diverse Validation Samples:** Older adults and clinically relevant rehabilitation populations should also participate as part of future studies; not only healthy young volunteers.
- **Long-Term, Real-World Evidence:** Trials are required to establish the long-term adherence, cost-effectiveness and workflow integration.
- **Enhance Machine Learning Models:** Increased size and diversity of data sets needed to improve predictive accuracy and minimize algorithmic bias
- **Durability and Comfort Engineering:** Further materials development is required to alleviate signal artefact and materials degradation due to wear, for fabric and skin contact sensors.
- **Multi-Disciplinary Collaboration:** There is a need for tighter integration between engineers, physiotherapists, clinicians, and regulators, to enable the translation of device innovation to clinical practice.
- **Regulatory Harmonisation:** There is a pressing need for regulatory clarity on matters related to validation, data governance, and ethical applications of AI-enabled wearable devices at the international level.

5. CONCLUSION

Technological advances have revolutionised the way physiotherapy is assessed and treated, particularly in the areas of technology, computation and materials engineering. Important methodological advances, their clinical applications and the limitations in the ability to fully translate into practice have been emphasized in this review. By examining the literature, it becomes clear that IMUs, smart textiles, exoskeletons, telerehabilitation platforms, and AI-assisted sensing have all contributed to the growth of the potential of objective, continuous physiotherapy assessment.

5.1 Summary of Main Insights and Conclusions

While wearable technology is a vital and growing part of today's physiotherapy, it's not something that can easily be replaced by the clinic-based assessment process. In this review, the importance of IMUs, EMG based smart textiles, exoskeletons, telerehabilitation platforms and machine learning integrated sensing in achieving faster, more continuous, and more personalised rehabilitation care has been highlighted. However, methodological heterogeneity, lack of long-term validation, durability limitations, and remaining data-governance issues remain clinical translation challenges.

5.2 Importance of the Review

- This course will give you an introduction to the recent advances of wearable technology and its applications in physiotherapy, such as IMUs, smart textiles, exoskeletons, telerehabilitation, and AI-integrated sensing.
- Highlights the importance of validation research and clinical application in supporting the increased credibility of wearable-based assessment.
- Recognizes the advantages and disadvantages of each technology category aiding in clinical and research decision making.
- Understands the importance of wearable physiotherapy in musculoskeletal, neurological and cardiopulmonary rehabilitation.
- Provides a point of reference for clinicians, researchers, technology developers and health-policy stakeholders.

5.3 Recommendations

- Expand clinical validation of physiotherapy interventions supported with wearables with larger, multi-site studies.
- Establish best practice, agreed protocols for placement, sampling time, and reporting of outcomes.
- Enhance durability, comfort and signal stability of textile-based EMG and exosuit systems.
- Increase investment in more long-term and real world trials that measure lasting adherence and cost-effectiveness.
- Use AI/ML analysis in conjunction with traditional biomechanical and clinical evaluation techniques—not alone.
- Promote collaboration with engineers, physiotherapists, clinicians and regulatory bodies.
- Define clear and consistent data-governance and regulatory structures for wearable generated health data on an international level.

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