

Rehabilitation

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December 2025

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1. Detection and rehabilitation of age-related motor skills impairment: Neurophysiological biomarkers and perspectives

Authors: Gordleeva, Susanna; Grigorev, Nikita; Pitsik, Elena; Kurkin, Semen; Kazantsev, Victor and Hramov, Alexander

Publication Date: 2026

Journal: Ageing Research Reviews

Abstract: Competing Interests: Declaration of Competing Interest The authors report no declarations of interest.; Age-related decline in motor control, manifesting as impaired posture, gait, and slowed movement execution, significantly diminishes the quality of life in older adults. These functional deficits are associated with alterations in neurophysiological data, which are analyzed using advanced techniques including spectral analysis, complexity measures, and functional connectivity network analysis. These methodologies provide valuable insights into the neurobiological mechanisms underpinning age-related motor function impairments, linking physiological changes to non-invasively recorded electrophysiological and hemodynamic responses. Recent investigations have demonstrated an age-dependent impairment in access to working memory during motor tasks, evidenced by significant correlations between electroencephalographic biomarkers and neural response latencies. Furthermore, these functional biomarkers are associated with the degradation of motor learning abilities in older individuals. There is a broad consensus that non-invasive assessment of brain activity accurately reflects the processes underlying age-related motor decline, thereby opening

avenues for targeted intervention strategies. A key area of investigation is the utilization of motor system function for the early detection of neurodegenerative diseases. Seemingly, simple motor tasks engage cortical regions responsible for attention, vision, and memory through a process known as sensorimotor integration. Sensorimotor training implemented via brain-computer interfaces with neurofeedback demonstrates potential for ameliorating both cognitive and motor deficits in both healthy older adults and those with age-related conditions. This review synthesizes current research on age-related changes revealed through neuroimaging data analysis, highlighting how biomarkers derived from brain electrical and hemodynamic activity reflect both normative and pathological aging processes. Finally, we emphasize the considerable potential of neurophysiological data analysis for advancing the field of aging research. Digital medicine platforms, including brain-computer interfaces and a range of wearable monitoring devices, hold significant promise for transforming the diagnosis of age-related diseases. These technologies empower continuous, objective monitoring of older adults, paving the way for personalized, precision-based medical interventions. (Copyright © 2025 Elsevier B.V. All rights reserved.)

2. Muscle oxygenation regulation in physical therapy and rehabilitation

Authors: Jan, Yih-Kuen and Cheung, W. C.

Publication Date: 2026

Journal: Medical Gas Research

Abstract: Skeletal muscle oxygenation reflects the balance between oxygen delivery from the microcirculation and oxygen consumption of the muscle cells. Oxygenation in the muscle tissue is an essential factor in muscle contractions for performing activities of daily living and exercise as well as muscle tissue viability. It is until the development of near-infrared spectroscopy for providing a noninvasive, continuous monitoring of muscle oxygenation. The principle of near-infrared spectroscopy is to use light property to assess oxygenation based on the appearance of oxygenated blood in red and deoxygenated blood in darker red to black. To date, there is no comprehensive review focusing on muscle oxygenation regulation and its applications in physical therapy and rehabilitation. The objectives of this comprehensive review are to: 1) highlight the recent technical advances in near-infrared spectroscopy technology for rehabilitation researchers, 2) present the advances in pathophysiological research in muscle oxygenation, and 3) evaluate findings and evidence of recent physical therapy and rehabilitation studies on improving muscle oxygenation. The review also evaluates findings and evidence of aerobic exercise, resistance exercise, contrast bath therapy, wound healing, cupping therapy, stretching, and electrical stimulation on muscle oxygen in healthy adults and patients with cardiovascular diseases. The use of near-infrared spectroscopy allows the assessment of muscle oxidative metabolism for personalized rehabilitation and exercise training. (Copyright © 2025 Medical Gas Research.)

3. Effectiveness of Occupational Therapy Interventions in Health Promotion and Primary Prevention for Adults: A Systematic Review

Authors: Kafel, Tibor;Šuc, Lea;Skela-Savič, Brigita and Vidovič, Marko

Publication Date: 2026

Journal: The American Journal of Occupational Therapy : Official Publication of the American Occupational Therapy Association

Abstract: Importance: As populations age, promoting health span has become a public health priority. Occupational therapy is well positioned to contribute through health promotion and primary prevention, yet its effectiveness remains underexplored.; Objective: To examine the effectiveness of occupational therapy interventions in health promotion and primary prevention for adults, as measured by health-related outcomes such as occupational performance, quality of life (QoL), well-being, and participation.; Data Sources: The PubMed, CINAHL, Cochrane Library, ProQuest, and Wiley Online Library databases were searched in February 2025.; Study Selection and Data Collection: Following Preferred Reporting Items for Systematic reviews and Meta-Analyses 2020 guidelines, eligible studies were randomized controlled trials (RCTs) of interventions led by or aligned with occupational therapy in adult health promotion or primary prevention. Risk of bias was assessed using the Joanna Briggs Institute (2024) checklist. Data were narratively synthesized because of heterogeneity.; Findings: Twelve RCTs (2020-2024) were included, covering diverse populations and settings. Interventions included workplace health promotion, home modifications, telerehabilitation, exergaming, and environmental or behavioral strategies. Positive effects were noted in fall reduction, coping, physical performance, and health-related QoL. Interventions rooted in occupational frameworks and delivered by trained occupational therapy practitioners showed greater effectiveness. Variability in intensity and delivery limited comparability.; Conclusions and Relevance: Occupational therapy interventions can support adult health promotion and disease prevention when contextual, person-centered, and occupation-based. Further research should address younger adults, leisure occupations, and intervention intensity. These findings support integrating occupational therapy into public health strategies to enhance health span and reduce reliance on reactive care. Plain-Language Summary: This review looked at how occupational therapy can help adults stay healthier longer through health promotion and disease prevention. We found 12 studies showing that occupational therapy programs-such as those focused on workplace wellness, home safety, or digital health-can improve things such as quality of life and physical ability. Programs led by trained occupational therapists and tailored to people's everyday lives worked better. More research is needed to learn how to reach younger adults and to understand what features make programs most effective. These findings show that occupational therapy can play a key role in public health and help people live healthier lives longer. (Copyright © 2025 by the American Occupational Therapy Association, Inc.)

4. Occupational Therapy Embedded Within Pulmonary Rehabilitation: A Process Evaluation

Authors: McCowan, Amanda; Gustafsson, Louise; Bissett, Michelle; Wenke, Rachel and Sriram, Krishna B.

Publication Date: 2026

Journal: OTJR: Occupational Therapy Journal of Research

Abstract: Exploration of the impact and contributions of occupational therapy within multidisciplinary pulmonary rehabilitation (PR) is necessary to strengthen the clinical evidence-base. The objective of this study was to describe occupational therapy embedded within a community-based PR program and explore mechanisms of impact. A process evaluation of occupational therapy practice embedded within an 8-week multidisciplinary PR was conducted. Data sources included administrative and medical record data, intervention checklists, and semi-structured interviews incorporating the Canadian Occupational Performance Measure and Modified Borg Dyspnea Scale. Nine participants completed the PR program. The home visit and personalized, one-to-one, occupation-centered interventions were identified as key mechanisms of impact. Goal-directed training occurred within the home but not in community clinic environments. The repetitive, occupation-based training was important for learning and everyday application and promoted application of multidisciplinary learning. This evaluation highlighted that individualized occupational therapy assisted PR patients to apply knowledge, from occupational therapy and other disciplines, to real-life challenges. Plain Language Summary: Occupational therapy in pulmonary rehabilitation A team of health professionals provide rehabilitation programs in the community for people with lung and breathing problems. Occupational therapists are one member of the health team. This article aims to describe what occupational therapists do in the programs and how they do it. People with lung and breathing problems who attended a program were asked about their experiences and thoughts on occupational therapy. They said they valued the one-to-one sessions with the occupational therapists and, the ability to practice everyday tasks with them really helped participants learn how to do everyday tasks more easily. Participants also reported occupational therapy helped to connect the information they learned from all health professionals in a meaningful, everyday way. Although this is important, only a small group of people who attended one program were asked. More research is needed to be certain of these findings.

5. Occupational Therapy Interventions Using Ayres Sensory Integration® for Children and Youth (2015-2024): A Systematic Review

Authors: Piller, Aimee;Glennon, Tara J.;Andelin, Lauren;Auld-Wright, Kelly;McHugh Conlin, Jessica;Teng, Krysti and Tarver, Talicia

Publication Date: 2026

Journal: The American Journal of Occupational Therapy : Official Publication of the American Occupational Therapy Association

Abstract: Importance: Pediatric occupational therapy practitioners often use Ayres Sensory Integration® (ASI) as part of their intervention process for children and youth with sensory integration and processing challenges that affect occupational participation.; Objective: To provide occupational therapy practitioners with current evidence on the effectiveness of ASI.; Data Sources: Searches were performed in MEDLINE, CINAHL Complete, PsycINFO, OTseeker, Cochrane Reviews, and ERIC.; Study Selection and Data Collection: Inclusion criteria included studies published in English between May 2015 and January 2024 with participants ages 0-21 yr with sensory processing challenges. Studies with Johns Hopkins Nursing Evidence-Based Practice Model evidence Levels I and II were included. All studies had to have occupation- or participation-based outcomes. The review followed Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) guidelines.; Findings: Twelve studies (four randomized controlled trials, four nonrandomized group designs, and four single-subject designs) met the inclusion criteria. Strong strength of evidence supports ASI for individual goal attainment and occupational performance. Moderate strength of evidence supports ASI in improving daily living and self-care skills and social, communication, and play skills.; Conclusions and Relevance: Occupational therapy practitioners should consider using ASI when working with children and youth with sensory integration and processing challenges to improve occupation- and participation-based outcomes. Plain-Language Summary: Children and youth may be referred to occupational therapy services to address sensory integration and processing challenges that affect their ability to perform daily occupations. This review evaluated the evidence for using Ayres Sensory Integration® (ASI) as an intervention to improve participation in everyday activities. The authors found that there is good evidence to support occupational therapy practitioners' use of ASI to support and improve participation for children with sensory integration and processing challenges. (Copyright © 2025 by the American Occupational Therapy Association, Inc.)

6. Cognitive Interventions and Rehabilitation to Address Long-COVID Symptoms: A Systematic Review

Authors: Weix, Natalie M.;Shake, Hannah M.;Duran Saavedra, Ana F.;Clingan, Hannah E.;Hernandez, Victoria C.;Johnson, Gabriella M.;Hansen, Alison DeVries;Collins, Diane M.;Pryor, Loree E.;Kitchens, Riqiea;Armstead, Amber and Hilton, Claudia

Publication Date: 2026

Journal: OTJR: Occupational Therapy Journal of Research

Abstract: Long COVID symptoms include cognitive and physical deficits impacting one's functional performance and quality of life. Limited evidence examines the use of cognitive interventions provided by occupational therapists in treating long COVID symptoms among adults. This systematic review summarizes existing studies on cognitive interventions and rehabilitation to treat long COVID symptoms and discusses their potential use within the scope of occupational therapy practice. We identified literature from 2021 to 2023 through searches of MEDLINE, CINAHL, PsycINFO, Cochrane Trials, and Scopus databases. Nineteen articles met inclusion criteria and were categorized into five types of intervention: (a) cognitive training, (b) cognitive behavioral therapy, (c) neurostimulation, (d) neurostimulation combined with cognitive training, and (e) multi-component rehabilitation programs. Strong evidence supports cognitive training, moderate supports cognitive behavioral training and low-level evidence supports other interventions provided by occupational therapists to target long COVID cognitive symptoms in adults. Plain Language Summary: Long COVID Occupational Therapy Options: Systematic Review Long COVID is defined as COVID symptoms continuing for 1 to 3 months or more, which affects the mental, cognitive, and physical systems, impacting the quality of life and ability to participate in meaningful activities. Few research studies have examined the effectiveness of treatments used by occupational therapists for adult clients with long COVID symptoms involving cognitive problems. This review summarizes research studies on these treatments and discusses their potential use in occupational therapy practice. Of the 338 potential research articles identified; 19 met the search criteria and five types of occupational therapy cognitive interventions to address long COVID symptoms in adults were found. Research about the interventions ranged from low-level to strong evidence.

7. Dropping out or Moving on? A Systematic Review With Meta-Aggregation of the Experience of Prehabilitation Among Patients With Cancer

Authors: Zhang, Ting;Su, Dan;Li, Shuwen and Yang, Yajuan

Publication Date: 2026

Journal: Journal of Clinical Nursing

Abstract: Background: The effect of prehabilitation on reducing the level of postoperative stress and facilitating recovery has been proven to be controversial in previous studies involving patients with cancer. This review contributes to the improvement of an intervention programme by qualitatively integrating the prehabilitation experiences of patients with cancer.; Objective: This review aimed to integrate the individual experiences of patients with cancer

who had received prehabilitation interventions to identify the barriers and facilitators to implementation, which can be used to understand patients' adherence behaviours.; Design: This was a qualitative evidence synthesis review.; Methods: Articles were systematically searched from inception to February 18, 2025, using four English databases and three Chinese databases. Keywords and Medical Subject Headings were used to identify potential studies written in both Chinese and English. This study was performed using the Joanna Briggs Institute qualitative systematic review methodology.; Results: Twenty-five articles were included in this review. Guided by the Theoretical Domains Framework (TDF), eight synthesised findings were extracted, focusing on the representation of factors influencing the adherence of patients with cancer to prehabilitation, including the domains of knowledge (two facilitators), reinforcement (two facilitators), beliefs about consequences (two facilitators), beliefs about capabilities (two barriers), environmental context and resources (two barriers, one intervention preference factor), social influence (one facilitator, one intervention preference factor), emotion (one barrier, one facilitator) and behavioural regulation (one facilitators, two intervention preference factors).; Conclusion: Our findings indicate that the adherence to prehabilitation among patients with cancer is shaped by a dynamic interplay of determinants. Structured assessments, self-monitoring, tailored interventions and tele-prehabilitation can improve patients' self-efficacy, perceived benefits and access to resources, which in turn can facilitate their completion of prehabilitation.; Impact: This study deepens our understanding of behaviours related to adherence to prehabilitation among patients with cancer and provides valuable guidance for the formulation and optimisation of subsequent prehabilitation intervention programmes.; Reporting: ENTREQ.; Patient or Public Contribution: No patient or public contributions.; Trial Registration: PROSPERO CRD: 42024553972. (© 2025 John Wiley & Sons Ltd.)

8. "Integrative physiotherapy in burn rehabilitation: Innovations in physical, psychological, and technological interventions – A narrative review"

Authors: Atiaa, Amany Gomaa; Abd E-Kader, Shehab M. and Ellakwa, Doha El-Sayed

Publication Date: 2025

Journal: Journal of Bodywork & Movement Therapies

Abstract: Burn injuries represent a critical healthcare challenge. Contemporary burn care has achieved remarkable survival rates through advanced acute interventions, yet comprehensive rehabilitation remains essential for optimal physical and psychological recovery. However, despite numerous isolated studies on rehabilitation approaches, a systematic understanding of integrated physiotherapy interventions' effectiveness across multiple domains remains inadequately synthesized. This narrative review examined evidence from January 2015 to March 2024 across major databases (PubMed, Scopus, ScienceDirect, Google Scholar), analyzing physiotherapy interventions in burn rehabilitation through physical, psychological, technological, and cultural lenses. This analysis revealed that early mobilization combined with aerobic and resistance training significantly improved patient outcomes, with Functional Independence Measure scores increasing by up to 40 % and hospital stays reducing by approximately 30 %. Integration of psychological strategies, including cognitive-behavioral therapy and mindfulness activities, enhanced treatment adherence and mental wellness. Modern technological solutions, particularly tele-rehabilitation and virtual reality applications, demonstrated improved accessibility and engagement. Notably, culturally sensitive

multidisciplinary approaches showed superior patient satisfaction and community reintegration outcomes. These findings underscore the critical importance of comprehensive physiotherapy interventions in burn rehabilitation while highlighting the need for future research focusing on equitable, culturally adaptive rehabilitation frameworks that integrate digital health technologies and cognitive rehabilitation approaches globally. This review aims to equip caregivers with up-to-date physiotherapeutic techniques for burn rehabilitation.

9. Feasibility and evaluation of a digital preventive physiotherapy protocol for workers: A randomized clinical trial

Authors: Bombarda, Larissa Tumelero;De Marchi, Ana,Carolina Bertoletti;Wibelinger, Lia Mara;Jorge, Matheus Santos Gomes;Poles, Caroline and Zanatta, Patrycia Sbeghen

Publication Date: 2025

Journal: Journal of Bodywork & Movement Therapies

Abstract: Preventive physiotherapy plays an essential role in health promotion, emphasizing educational strategies and interventions aimed at preventing musculoskeletal dysfunctions. This study aimed to investigate the effects of a preventive physiotherapy protocol mediated by a mobile application on the health of workers. The participants' self-perceived health and thoracolumbar flexibility were assessed by comparing the results obtained before and after the intervention. We also sought to understand workers' perceptions of the proposed protocol. This exploratory randomized controlled clinical trial combines quantitative and qualitative approaches. in which participants received audiovisual educational interventions on the prevention of musculoskeletal diseases and healthy habits via the WhatsApp app over a 12-week period. The sample consisted of workers from a higher education institution in the state of Rio Grande do Sul, divided into a control group and an intervention group. The perception of the importance of preventive physiotherapy and thoracolumbar flexibility associated with each individual's self-perceived health variables were analyzed. The results showed no statistically significant differences between the groups in terms of self-perceived health, perception of preventive practice and thoracolumbar flexibility. However, intra-group improvements were observed in some parameters, suggesting a positive effect of the intervention. There are preliminary indications that technology-mediated preventive physiotherapy may be a viable workplace strategy, with potential health benefits, although it requires further development.

10. The potential of place-based occupational therapy to support aging-in-place: A qualitative study

Authors: Cheong, Florence and Yu, Chou Chuen

Publication Date: 2025

Journal: Hong Kong Journal of Occupational Therapy

Abstract: Introduction: Aging-in-place facilitate seniors to stay in their homes throughout the

aging process. Place-based Occupational Therapy is a proposed service delivery model aimed at facilitating this. This study explores community occupational therapists' perspectives on how place-based Occupational Therapy could facilitate aging-in-place and the perceived enablers and barriers to this model of care. Method: The participants were occupational therapists working in the community setting. Data was collected through semi-structured interviews. An aging-in-place capability framework was employed to guide the interviews. A generic descriptive-interpretive qualitative research approach was used for the analysis. Results: Data saturation was reached at the seventh interview (n = 7). Six major themes were generated to explore the perspectives of occupational therapists on a place-based strategy to deliver Occupational Therapy services: (i) maintaining health and function, (ii) partnering with caregivers, (iii) ideal location within neighborhoods, (iv) understanding clients' environment strengthens intervention, (v) facilitating social connections and cognitive wellness, and (vi) enablers for service set-up. Besides financial support, key enablers include clinical expertise and program management experience. Conclusion: Findings from this study can facilitate future planning of place-based Occupational Therapy services. The services should be fuss-free, short-term and affordable. The service should be sited where many older adults gather in their neighbourhoods, within walkable distance from their homes. Occupational therapists can contribute to program planning to maintain health and function and facilitate relationship building between older adults. There is potential for place-based occupational therapists to contribute to health promotion due to the profession's unique focus on habits and environment.

11. The value of the occupational therapy workforce in primary care: A rapid review

Authors: Coomber, Caroline; Smyth, Genevieve and Taylor, Elizabeth

Publication Date: 2025

Journal: British Journal of Occupational Therapy

Abstract: Introduction: Primary care is a growing area for allied health professionals, including occupational therapists, offering opportunities for early intervention and prevention alongside collaborative, holistic approaches to patient care. The aim of the rapid review was to explore the evidence regarding positioning occupational therapists in this setting. Methods: Bibliographic databases (CINAHL, Medline, APA PsycInfo), Google Scholar and websites of relevant organisations were searched. Search parameters were English language and date (2013–2024). The initial inclusion criteria focussed on United Kingdom (UK) research but due to a lack of high-quality evidence, randomised controlled trials from countries outside of the UK were included. Findings: Sixteen papers were included in the review. Four papers reported UK research. Interventions included falls prevention, frailty services, lifestyle management programmes, medication adherence, mindfulness and vocational clinics. Conclusion: The evidence supported the positioning of the occupational therapy workforce in primary care particularly in the areas of falls interventions, frailty services and self-management. Where occupational therapists were co-located with primary care professionals, this fostered communication, information sharing and a better understanding of occupational therapy.

12. Toward convergence in spinal cord injury therapies: neuromodulation, pharmacology, imaging, and rehabilitation

Authors: Guest, James and Bloom, Ona

Publication Date: 2025

Journal: Current Opinion in Neurology

13. Transformative leadership in physiotherapy education: breaking norms, embracing change

Authors: Hanif, Shahina and Batty, Helen

Publication Date: 2025

Journal: BMJ Leader

Abstract: Background: Leadership education is increasingly recognised as essential for preparing healthcare students to navigate complexity and drive change. Yet practice-based learning (placements) focusing on leadership in the Allied Health Professions remains underexplored and is often perceived as less relevant than those in clinical settings. This article presents a reflective account from a mature physiotherapy student from a minoritised ethnic background, whose cultural upbringing initially positioned education and leadership as inaccessible.; Method: The student undertook a 6-week leadership-focused placement during her second year of study. Entering with apprehension and uncertainty about its value, she engaged in structured activities, including weekly presentations designed to reflect on learning from the previous weeks and to discuss progress on the placement's central project.; Results: Drawing on personal experiences of navigating cultural and gender norms, the placement provided opportunities for significant personal and professional growth, including increased confidence, resilience and development of transferable skills in communication, digital literacy and teamworking. It enabled the student to challenge internalised limitations shaped by cultural expectations and recognise leadership as an integral aspect of physiotherapy practice. The impact of this leadership journey was demonstrated through a university leadership award and the opportunity to influence others via a national online presentation for the Chartered Society of Physiotherapy.; Conclusion: This article illustrates how leadership-focused placements can be transformative by fostering inclusion, self-belief and professional adaptability. These placements align with workforce transformation goals and highlight the need to embed leadership as a core component of healthcare education. (© Author(s) (or their employer(s)) 2025. No commercial re-use. See rights and permissions. Published by BMJ Group.)

14. Effectiveness, Feasibility, Acceptability, and Safety of Digital Interventions in Post-Stroke Rehabilitation: A Systematic Review and Meta-analysis of Randomized Controlled Trials

Authors: Liu, Shuangyue;Li, Min;Ding, Jilin;Ji, Qipei;Niu, Yanning;Yang, Xiao;Ai, Shuangchun and Li, Siyuan

Publication Date: 2025

Journal: Archives of Physical Medicine & Rehabilitation

Abstract: To assess the effects of digital interventions on cognition, emotion, and activities of daily living (ADL) in stroke survivors, alongside evaluating feasibility, acceptability, and safety metrics. We systematically searched 11 English databases for eligible studies published between 2000 and May 2025. Randomized control trials that focused on poststroke digital therapeutics were included. Experimental groups received digital interventions, while control groups underwent standard therapies or placebo. The outcomes included cognition, emotion, ADL, feasibility, acceptability, and safety. Two researchers independently extracted key data from eligible studies. Risk and methodology were assessed using the Cochrane Risk of Bias v2.0 and the PEDro scale. The meta-analysis was conducted using CMA v3.7, following the PRISMA 2020 guidelines. Sixty-three studies (3297 participants) demonstrated significant improvements in overall cognition ($g = 0.46$; 95% CI, 0.24-0.67; $P < .001$) across digital interventions. Adherence and attendance were generally high, while safety profiles were mostly favorable with mild adverse events like fatigue or dizziness in some cases. Digital interventions significantly enhance cognition when delivered via clinic-based exergaming or computer cognitive training (≤ 30 min/session), while maximizing ADL improvements through robot-assisted or computer cognitive training in stroke patients. Robust feasibility, acceptability, and favorable safety supports clinical integration.

15. Prioritizing quality of geriatric rehabilitation from the older adults' perspective: A nominal group technique study

Authors: Lubbe, Anne L.;Groen, Wim G.;van Rijn, Marjon;Mittelmeijer, Deborah C.;Hertogh, Cees Mpm;Buurman, Bianca M. and Pol, Margriet C.

Publication Date: 2025

Journal: Clinical Rehabilitation

Abstract: ObjectiveTo identify and prioritize aspects of quality in geriatric rehabilitation from the perspective of older adults.DesignQualitative study using a structured Nominal Group Technique.SettingThree nominal group technique sessions were conducted in geriatric rehabilitation settings in the Netherlands.ParticipantsWe included older adults admitted to geriatric rehabilitation, Dutch proficiency, the ability to communicate and engage in group discussions, and an intention to return to independent living.InterventionParticipants engaged in structured nominal group technique sessions. Each session included five steps: introduction, idea generation, exchange of ideas, discussion, and ordering and rankingMain

measures Audio-recorded sessions were transcribed verbatim and analyzed using a combined inductive and deductive coding. Quality aspects were prioritized based on their summed ranking scores, relative importance, and selection frequency. Results Eighteen older adults were included. Participants identified five key priorities for quality in geriatric rehabilitation: (1) good preparation with clear expectations, (2) well-organized therapy and care, (3) relationships with healthcare professionals that acknowledge individual needs, (4) clear, respectful communication, and (5) autonomy in treatment decision-making. The qualitative analysis supported these priorities with three overarching themes: the value of a supportive environment, feeling heard and understood, and the need for guidance and involvement. Conclusion This study provides priorities for improving quality in geriatric rehabilitation, according to the experiences of older adults and offers direction for implementation in clinical practice.

16. The effect of occupational therapy services on hospital readmission for patients with cancer in acute care settings: a retrospective data analysis

Authors: McNichols, Christine C.; Peterson, Alicia K. and Reynolds, Stacey

Publication Date: 2025

Journal: Journal of Cancer Survivorship

17. Voices from the clinic: a qualitative analysis of physiotherapy strategies in musculoskeletal care for knee osteoarthritis patients

Authors: Nguyen, Jennifer; Naylor, Justine M.; Dennis, Sarah; Livings, Rebecca; Mills, Kathryn; Schabrun, Siobhan M. and Thom, Jeanette M.

Publication Date: 2025

Journal: BMC Musculoskeletal Disorders

18. Effectiveness of manual therapy vs conventional physical therapy with neuromuscular training in the management of knee osteoarthritis: A randomized clinical controlled trial

Authors: Pakkir Mohamed, Shahul Hameed;Albalawi, Hani Fahad;Nambi, Gopal;Shalabi, Kholood Matouq and Albalawi, Mohammed Obaid

Publication Date: 2025

Journal: International Journal of Osteopathic Medicine

Abstract: Osteoarthritis (OA) is a chronic degenerative disorder mainly affecting the knee joint. The objective of the study was to evaluate the effectiveness of manual therapy (MT) with neuromuscular training (NMT) and conventional physical therapy (CPT) with NMT for chronic knee OA. Randomized, double-blinded controlled study design conducted at government hospitals for the period of 12 months. Sixty subjects aged 40 and 70 were randomly assigned into experimental (MT + NMT) and control (CPT + NMT) groups using the block randomization method. The outcome measures are pain, Knee Flexion ROM, disability, balance, and quality of life, which were measured at baseline, three and six weeks. The effects of treatment were examined utilizing separate 2-by-3 mixed-model analyses of variance using SPSS 25.0. Demographic characteristics such as age, gender, height and weight did not show any statistically significant differences between the groups ($p > 0.05$). The experimental group (EG) showed a significant reduction in pain compared to the control group (CG) after 3 weeks of intervention (mean between-group difference 1.5 (95 %CI: 1.21to1.78). This was maintained during a 6-week follow-up of 2.6 (95 %CI: 2.31–2.88). At three weeks, patients showed a significantly greater flexion ROM improvement in the EG as well as in the six-week follow-up. Similarly, functional disability, balance and quality of life were significantly better in the EG at the 3 and 6-week follow-ups respectively. Our study results showed a significant improvement in the clinical outcomes following the application of manual therapy with neuromuscular training in managing chronic Knee Osteoarthritis. Clinical significance of the study: The clinical significance of studies on OA knee physical therapy for researchers, physicians, and patients resides in the potential to optimize care, reduce pain and disability, and enhance quality of life. Research shows the efficacy of exercise therapy and educational programs in enhancing clinical practice, empowering patients in self-management, and reducing healthcare costs. For researchers: Research on physical therapy for OA knee contributes to the growing body of evidence supporting targeted therapies, such as exercise therapy and educational programs. Recent studies inform physical therapy practices, creating an essential evidence base for developing and refining clinical recommendations. This research can identify the most effective types of exercises, appropriate dosages, and delivery methods tailored to various subgroups of individuals with knee OA. For clinicians: By employing evidence-based therapies, clinicians can enhance measures of outcomes, such as pain, mobility, physical function, and quality of life. Clinicians determine the most suitable therapies for individual patients by evaluating criteria such as severity of the disease, patient preferences, and the available resources. For patients: Enhanced analgesic strategies and effective physical therapy can help patients keep their independence and engage more fully in daily life by enabling them to engage in activities and reducing their dependency on medication without the possibility of negative side effects. Education and self-management strategies can enable patients to take control of their health and make informed decisions regarding their care; in certain instances, physical therapy may

postpone or even eliminate the necessity for knee replacement surgery by enhancing pain relief and functionality.

19. Safety and feasibility of early physiotherapy applied in the intradialytic period to critically ill patients in the intensive care unit: A scoping review

Authors: Policarpo, Júlio Henrique;Rodrigues da Silva, Juliana;Dornelas de Andrade, Armèle and Marinho, Patrícia Érika de Melo

Publication Date: 2025

Journal: Journal of Bodywork & Movement Therapies

Abstract: To describe the current status of safety and feasibility physiotherapy application during hemodialysis in patients during ICU stay. It is a scoping review conducted from May to July 2024, developed in accordance with the PRISMA-ScR guidelines. The Concept, Population, and Context strategy and descriptors standardized by DECS and MESH in English and Portuguese were used, and they were arranged in different strategies in nine databases (MEDLINE by PUBMED, EMBASE, LILACS-BVS, PEDro, Scielo, WoS, Portal de Periódicos CAPES, and CINAHL). The studies were analyzed in terms of authorship, year of publication, design, outcomes, population, and results. The main outcome reported was describe the safety and presence of adverse events of applying physiotherapy to critically ill patients during hemodialysis session. A total of 122 files were identified and 02 were included after screening and selection. The results were framed into 07 themes on the particularities of early physiotherapy: the context of the physiotherapy in the ICU, Hemodialysis and vascular access to the necessary care, physiotherapy applied in the intradialytic period, the importance of interdisciplinary action, recording of adverse events, and the patient's perception. Early physiotherapy applied during the intradialytic period in ICU patients was safe when conducted with a careful assessment of eligible patients, although transient hemodynamic changes may occur as adverse events.

20. Analysis of the Impact of High Acuity Rehabilitation Beds in Reducing Readmission Rate to Acute Care

Authors: Sammartino, Francesco;Yu, Eunkyung;Huffman, Tracy;Harris, Angela;Musto, Maureen;Schultz, Sarah;Callicot, McKenzie and Bavishi, Sheital

Publication Date: 2025

Journal: American Journal of Physical Medicine & Rehabilitation

Abstract: Objective: The aim of this study is to describe the use of the high acuity rehabilitation program at an academic rehabilitation institution to limit the readmission rate to acute care hospitals. Design: Retrospective data from inpatient admissions and discharges between January 2019 and June 2023 were used for this study. Modeling was performed

using stepwise regression to select intrinsic and extrinsic patient factors associated with acute admission status. The model performance was assessed using confusion matrices and receiver operating characteristic curves. Results: Among the 199 patients who utilized the high acuity rehabilitation program unit from January 2019 to June 2023, 96 were discharged acutely to a hospital, while 103 were discharged to home, skilled nursing facility, or long-term acute care facility. The most frequent impairment groups among high acuity rehabilitation program users were brain injury (22%), debility (21%), and spinal cord injury (18%). The improvement in GG scores for self-care and mobility was associated with successful discharges to nonacute care settings. Conclusions: Unplanned discharges from rehabilitation to acute care are a reason for prolonged hospital stays and increased financial burden on patients. The implementation of a high acuity rehabilitation program can help in the management of temporary medical conditions.

21. Impact of climate change on musculoskeletal disorders and the evolving role of physiotherapy in mitigation and adaptation

Authors: Sharma, Jyoti and Sidiq, Mohammad

Publication Date: 2025

Journal: European Journal of Physiotherapy

Abstract: The article focuses on the impact of climate change on musculoskeletal health, particularly concerning muscle and bone health. It highlights how increased temperatures, humidity, and air pollution can lead to muscle fatigue, decreased exercise tolerance, and reduced bone mineral density, especially among vulnerable populations like the elderly. The article emphasizes the role of physiotherapists in addressing these challenges through preventive interventions, rehabilitative approaches, and advocacy for climate-resilient healthcare. It suggests that collaborative care models and digital health solutions can enhance the management of conditions such as sarcopenia and osteoporosis in the context of a changing climate.

22. Revisiting the core principles of physical rehabilitation after stroke: Recapping the guidelines and underlining the importance of assessment

Authors: Stockley, Rachel C.;Clark, Louise and Kelly, Kate

Publication Date: 2025

Journal: British Journal of Occupational Therapy

Abstract: The article focuses on the 2023 UK National Clinical Guideline for Stroke and the NICE Guideline for Stroke Rehabilitation in Adults, which aim to enhance patient care in stroke rehabilitation through evidence-based recommendations. It emphasizes the importance of motor interventions, particularly for upper limb rehabilitation, and outlines key

recommendations such as repetitive task training and the consideration of new therapies like transcutaneous vagal nerve stimulation. The article also highlights the critical role of accurate assessment in treatment planning, noting that skilled clinicians analyze movement to identify impairments and guide therapy. The authors intend to provide a foundational understanding of these guidelines and their implications for effective stroke rehabilitation practices.

23. Small questions, big shifts: using 24-hour guidelines to support daily life in physiotherapy

Authors: Vancampfort, Davy;Stubbs, Brendon and Van Damme, Tine

Publication Date: 2025

Journal: European Journal of Physiotherapy

Abstract: The article focuses on the role of physiotherapists in helping individuals optimize their 24-hour movement behaviors, which include physical activity, sedentary behavior, and sleep, in accordance with established guidelines. It emphasizes the importance of integrating brief assessment tools, such as the Physical Activity Vital Sign (PAVS), to facilitate the translation of these guidelines into practice. The article also discusses the need for flexible goal-setting strategies that encourage patient engagement and self-discovery, particularly during recovery from illness or injury. Additionally, it highlights the significance of addressing sleep as a critical component of recovery and suggests that further research is necessary to evaluate the effectiveness of these approaches in physiotherapy settings.

24. Occupational therapists' role in sleep management in palliative care: A cross-sectional survey

Authors: Webster, Madeleine;Barclay, Linda;Parikh, Dhvani and Lalor, Aislinn

Publication Date: 2025

Journal: British Journal of Occupational Therapy

Abstract: Introduction: Sleep is fundamental to an individual's health, well-being and quality of life. Poor sleep and sleep disturbances are common for individuals receiving palliative care. Occupational therapists play a crucial role by effectively addressing sleep in this context. However, there has been limited research regarding the role, scope and implementation of sleep management interventions among occupational therapists within palliative care, and the needs that therapists have to support this area of practice. Methods: An online cross-sectional survey was conducted among Australian occupational therapists with current or recent experience in palliative care. Qualitative data from open-ended response items were analysed using content analysis. Results: Fifty-one occupational therapists (92.2% female) with an average of 7.6 years of experience working in palliative care completed the online survey.

Most participants (88.2%) perceived that sleep was within the scope of the occupational therapy practice in palliative care; however, few participants indicated good/excellent knowledge of sleep or sleep assessment and intervention. Barriers to adequately addressing sleep issues included a lack of therapists' knowledge, limited understanding of the scope by other professionals, workload constraints and limited resources. Conclusion: Occupational therapists may benefit from evidence-based resources and guidelines to address sleep issues in palliative care.

25. Effect Size Guidelines for Individual and Group Differences in Physiotherapy

Authors: Zieliński, Grzegorz

Publication Date: 2025

Journal: Archives of Physical Medicine & Rehabilitation

Abstract: To investigate the distribution of effect sizes in individual and group differences within physiotherapy to provide standardized estimates of effect sizes in the field. Meta-analysis of effect sizes extracted from published studies in physiotherapy. Data were collected from 6 physiotherapy journals with the highest H-index. A total of 111 meta-analyses (N=111) were analyzed, yielding 3374 extracted effect sizes. Not applicable. Effect sizes were categorized as diagnostic methods, kinesiotherapy, manual therapy, and a group labeled "laser therapy, magnetic therapy, electrotherapy, etc." Hedges' g effect sizes were determined, and percentiles were calculated to establish thresholds for small, medium, and large effects. For individual differences (Pearson's r), the 25th, 50th, and 75th percentiles were 0.33, 0.45, and 0.62, respectively. For group differences (Hedges' g), these values were 0.13, 0.35, and 0.79, respectively. In kinesiotherapy, small, medium, and large effect sizes were determined as 0.1, 0.3, and 0.7, respectively. For physiotherapy diagnostics, the thresholds were 0.2, 0.5, and 1.0, respectively. For physical treatments such as laser therapy, magnetic therapy, and electrotherapy, the corresponding values were 0.1, 0.4, and 1.1. For manual therapy, the thresholds were 0.1 for small effects, 0.3 for medium effects, and 0.8 for large effects. For individual differences (Pearson's r), small, medium, and large effect sizes should be considered 0.3, 0.5, and 0.6, respectively. For group differences (Cohen's d or Hedges' g), small, medium, and large effect sizes should correspond to 0.1, 0.4, and 0.8, respectively. These findings provide standardized effect size estimates for various physiotherapy interventions, aiding in the interpretation of research outcomes.

26. Prehabilitation for radiotherapy-induced vaginal and sexual health issues: Women's experiences of a novel intervention

Authors: Åkeflo, Linda; Höynä Wessberg, Josefin; Goldkuhl, Lisa; Elmerstig, Eva; Blomqvist, Emelie; Fessé, Per; Kunni, Kristin; Långegård, Ulrica; Ohlsson-Nevo, Emma; Sjövall, Katarina; Örmön, Karin and Ahlberg, Karin

Publication Date: 2025

Journal: European Journal of Oncology Nursing

Abstract: This study explores women's experiences of a novel prehabilitation intervention, integrating early vaginal dilator therapy before and during pelvic radiotherapy. This qualitative study included sixteen women scheduled for pelvic radiotherapy. All participants received a pre-treatment intervention with individualized information and support to start vaginal dilator therapy prior to radiotherapy. Semi-structured interviews were conducted with all sixteen women before or during treatment. Of these, ten also participated in follow-up interviews after radiotherapy. Data were analyzed using reflexive thematic analysis. Four themes were constructed reflecting women's experiences of the new prehabilitation intervention: (1) Regaining control while facing the unknown, (2) Navigating identity, (3) Conceptualizing vaginal and sexual health, and (4) Building trust. Women found that vaginal dilator therapy during prehabilitation enabled a sense of control and readiness for upcoming sexual and vaginal health concerns. The early support was perceived as timely, acceptable, and empowering, regardless of women's initial motivation to engage. None of the women preferred to only receive the information after treatment, reflecting the value of proactive care. Integrating vaginal dilator therapy into prehabilitation may enhance preparedness, promote self-care, and reduce distress during pelvic radiotherapy. Further research is needed to confirm benefits and tailor support to individual needs. • Exploring a novel nurse-led vaginal and sexual health prehabilitation • Pre-radiotherapy interventions helped women restore control in uncertain times. • Prehabilitation served as supportive preparation for side-effects and self-care. • Vaginal and sexual health prehabilitation helped women be future-oriented. • Pre-radiotherapy vaginal dilator use served as a baseline guiding post-treatment use.

27. Experience, delivery and impact of physiotherapy degree apprenticeships

Author: Chartered Society of Physiotherapy

Publication Date: 2025

Chartered Society of Physiotherapy

The CSP partnered with Skills for Health to examine the experience, delivery and impact of pre-registration physiotherapy degree apprenticeships. NHS England funded this work as part of the professional body education reform commission.

28. Free digital and data training launches for AHPs

Author: Digital Health

Publication Date: 2025

A free digital education programme has been launched to provide access to digital and data knowledge and practical skills for AHPs based in the UK. It has been funded by NHS England Digital Academy and the Chartered Society of Physiotherapy Charitable Trust. The training is available on the NHS England Digital Academy.

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