

Rehabilitation

Current Awareness Bulletin

March 2025

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1. Relative efficacy of prehabilitation interventions and their components: systematic review with network and component network meta-analyses of randomised controlled trials

Authors: McIsaac, D; Kidd, G; Gillis, C; et al

Publication date: 2005

Journal: BMJ

Abstract

Objective To estimate the relative efficacy of individual and combinations of prehabilitation components (exercise, nutrition, cognitive, and psychosocial) on critical outcomes of postoperative complications, length of stay, health related quality of life, and physical recovery for adults who have received surgery.

Design Systematic review with network and component network meta-analyses of randomised controlled trials.

Data sources Medline, Embase, PsycINFO, CINAHL, Cochrane Library, and Web of Science were initially searched 1 March 2022, and updated on 25 October 2023. Certainty in findings were assessed using the Confidence in Network Meta-Analysis (CINeMA) approach.

Main outcome measures To compare treatments and to compare individual components informed by partnership with patients, clinicians, researchers, and health system leaders using an integrated knowledge translation framework. Eligible studies were any randomised controlled trial including adults preparing for major surgery who were allocated to prehabilitation interventions or usual care, and where critical outcomes were reported.

Results 186 unique randomised controlled trials with 15 684 participants were included. When comparing treatments using random-effects network meta-analysis, isolated exercise (odds ratio 0.50 (95% confidence interval (CI) 0.39 to 0.64); very low certainty of evidence), isolated nutritional (0.62 (0.50 to 0.77); very low certainty of evidence), and combined exercise, nutrition, plus psychosocial (0.64 (0.45 to 0.92); very low certainty of evidence) prehabilitation were most likely to reduce complications compared with usual care. Combined exercise and psychosocial (−2.44 days (95% CI −3.85 to −1.04); very low certainty of evidence), combined exercise and nutrition (−1.22 days (−2.54 to 0.10); moderate certainty of evidence), isolated exercise (−0.93 days (−1.27 to −0.58); very low certainty of evidence), and isolated nutritional prehabilitation (−0.99 days (−1.49 to −0.48); very low certainty of evidence) were most likely to decrease length of stay. Combined exercise, nutrition, plus psychosocial prehabilitation was most likely to improve health related quality of life (mean difference on Short Form-36 physical component scale 3.48 (95% CI 0.82 to 6.14); very low certainty of evidence) and physical recovery (mean difference in meters on the six min walk test 43.43 (95% CI 5.96 to 80.91); very low certainty of evidence). When comparing individual components using component network meta-analysis, exercise and nutrition were the individual components most likely to improve all critical outcomes. The certainty of evidence for all comparisons across all outcomes was generally low to very low due to trial level risk of bias and imprecision; however, results for exercise and nutritional prehabilitation were robust with exclusion of high risk of bias trials.

Conclusions Consistent and potentially meaningful effect estimates suggest that exercise prehabilitation, nutritional prehabilitation, and multicomponent interventions including exercise

may benefit adults preparing for surgery and could be considered in clinical care. However, multicentre trials that are appropriately powered for high priority outcomes and that have a low risk of bias are required to have greater certainty in prehabilitation's efficacy.

2. Preparing physiotherapists for the future: the development and evaluation of an innovative curriculum.

Author: Stolwijk N.

Publication date: 2025

Journal: BMC Medical Education

[Educational innovation in health professional education is needed to keep up with rapidly changing healthcare systems and societal needs. This study evaluates the implementation of PACE, an innovative curriculum designed by the physiotherapy department of the HAN University of Applied Sciences in The Netherlands. The PACE concept features an integrated approach to learning and assessment based on pre-set learning outcomes, learning goals, flexible learning routes, and programmatic assessment.]

3. Intensive care unit acquired weakness and physical rehabilitation in the ICU

Authors: Stephanie L Hiser, Kelly Casey, Peter Nydahl; et al

Publication date: 2025

Journal: BMJ

Approximately half of critically ill adults experience intensive care unit acquired weakness (ICUAW). Patients who develop ICUAW may have negative outcomes, including longer duration of mechanical ventilation, greater length of stay, and worse mobility, physical functioning, quality of life, and mortality. Early physical rehabilitation interventions have potential for improving ICUAW; however, randomized trials show inconsistent findings on the efficacy of these interventions. This review summarizes the latest evidence on the definition, diagnosis, epidemiology, pathophysiology, risks factors, implications, and management of ICUAW. It specifically highlights research gaps and challenges, with considerations for future research for physical rehabilitation interventions.

4. Commonly used interventional procedures for non-cancer chronic spine pain: a clinical practice guideline

Authors: Busse, Jason W; Genevay, Stéphane; Agarwal, Agoritsas, Thomas; et al

Date of publication: 2025

Journal: *BMJ*

Clinical question What is the comparative effectiveness and safety of commonly used interventional procedures (such as spinal injections and ablation procedures) for chronic axial and radicular spine pain that is not associated with cancer or inflammatory arthropathy?

Current practice Chronic spine pain is a common, potentially disabling complaint, for which clinicians often administer interventional procedures. However, clinical practice guidelines provide inconsistent recommendations for their use.

Recommendations For people living with chronic axial spine pain (≥ 3 months), the guideline panel issued strong recommendations against: joint radiofrequency ablation with or without joint targeted injection of local anaesthetic plus steroid; epidural injection of local anaesthetic, steroids, or their combination; joint-targeted injection of local anaesthetic, steroids, or their combination; and intramuscular injection of local anaesthetic with or without steroids. For people living with chronic radicular spine pain (≥ 3 months), the guideline panel issued strong recommendations against: dorsal root ganglion radiofrequency with or without epidural injection of local anaesthetic or local anaesthetic plus steroids; and epidural injection of local anaesthetic, steroids, or their combination.

How this guideline was created An international guideline development panel including four people living with chronic spine pain, 10 clinicians with experience managing chronic spine pain, and eight methodologists, produced these recommendations in adherence with standards for trustworthy guidelines using the GRADE approach. The MAGIC Evidence Ecosystem Foundation provided methodological support. The guideline panel applied an individual patient perspective when formulating recommendations.

The evidence These recommendations are informed by a linked systematic review and network meta-analysis of randomised trials and a systematic review of observational studies, summarising the current body of evidence for benefits and harms of common interventional procedures for axial and radicular, chronic, non-cancer spine pain. Specifically, injection of local anaesthetic, steroids, or their combination into the cervical or lumbar facet joint or sacroiliac joint; epidural injections of local anaesthetic, steroids, or their combination; radiofrequency of dorsal root ganglion; radiofrequency denervation of cervical or lumbar facet joints or the sacroiliac joint; and paravertebral intramuscular injections of local anaesthetic, steroids, or their combination.

Understanding the recommendations These recommendations apply to people living with chronic spine pain (≥ 3 months duration) that is not associated with cancer or inflammatory arthropathy and do not apply to the management of acute spine pain. Further research is warranted and may alter recommendations in the future: in particular, whether there are differences in treatment effects based on subtypes of chronic spine pain, establishing the effectiveness of interventional procedures currently supported by low or very low certainty evidence, and effects on poorly reported patient-important outcomes (such as opioid use, return to work, and sleep quality).

5. Wearable devices for patient monitoring in the intensive care unit

Authors: Angelucci A, Greco M, Aliverti, A; et al

Publication date: 2025

Journal: Intensive Care Medicine Experimental

Abstract

Wearable devices (WDs), originally launched for fitness, are now increasingly recognized as valuable technologies in several clinical applications, including the intensive care unit (ICU).

These devices allow for continuous, non-invasive monitoring of physiological parameters such as heart rate, respiratory rate, blood pressure, glucose levels, and posture and movement. WDs offer significant advantages in making monitoring less invasive and could help bridge gaps between ICUs and standard hospital wards, ensuring more effective transitioning to lower-level monitoring after discharge from the ICU. WDs are also promising tools in applications like delirium detection, vital signs monitoring in limited resource settings, and prevention of hospital-acquired pressure injuries. Despite the potential of WDs, challenges such as measurement accuracy, explainability of data processing algorithms, and actual integration into the clinical decision-making process persist. Further research is necessary to validate the effectiveness of WDs and to integrate them into clinical practice in critical care environments.

Take home messages

- Wearable devices are revolutionizing patient monitoring in ICUs and step-down units by providing continuous, non-invasive, and cost-effective solutions.
- Validation of their accuracy and integration in the clinical decision-making process remain crucial for widespread clinical adoption.

6. A phenomenological study of the lived experiences of hospital-based physical therapy department leaders' most successful change management initiative

Authors: Patanella, J.

Publication Date: 2025

Institution: Seton Hall University

Abstract: A phenomenological study of the lived experiences of hospital-based physical therapy department leaders' most successful change management initiative
Problem: Change management initiatives are consistently employed in healthcare to promote quality care. Of concern is that not all initiatives are successful. Individuals involved in successful change management can offer insight to those approaching initiatives. **Purpose:** The purpose of this phenomenological study is to describe the lived experiences of hospital-based physical therapy department leaders' most successful change management initiative. **Methods:** The research design was a qualitative approach. A phenomenological research design was employed, using the voice of a group that has lived through the phenomenon of a successful change management initiative (SCMI) as part of their work history (Creswell & Creswell, 2018). The phenomenon of interest was SCMI, which was explored using hospital-based. Physical Therapy management leaders who participated in positive change management initiatives were recruited from the RWJBH Rehabilitation Directors Council, The CHPTD Council of hospital PT Directors, and the APTA NJ Board Members. **Results:** In summary, this study surveyed the experiences of hospital-based physical therapy leaders with their most successful change management initiatives. It found that successful physical therapy leaders had acquired knowledge, importance, confidence, and perceived readiness. Something else that emerged from the participants' voices was that they had to be successful because this was their job; they had to do it for their work. The essence here is that necessity drove success. **Conclusion:** By exploring the perceived readiness of physical therapy leaders and

their teams, hospitals can acquire valuable awareness to help them integrate change management initiatives into their annual change strategies. We live in today's ever-changing healthcare system; over 70 % of change management initiatives fail. The findings from this study suggest that hospitals should focus on getting employees ready for the new change initiatives before they launch them to increase their chances of a successful rollout. Something else that emerged from the participants' voices was that they had to be successful because this was their job; they had to do it for their work. The essence here is that necessity drove success. (PsycInfo Database Record (c) 2024 APA, all rights reserved)

7. 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

8. Is More Rehabilitation Associated with Less Inpatient Post-Acute Care Use Among Older Adults with Prolonged Hospitalization?

Authors: Nguyen D.Q., Makam A.N.

Publication date: 2025

Journal: Journal of general internal medicine

9. 'Can be challenging but usually worth it!': International survey of rehabilitation professionals' experiences of social media use after acquired brain injury.

Authors: Brunner M.L., Rietdijk R., Avramovic P., Brassel S., Southwell K., Togher L.

Publication date: 2025

Journal: International journal of language & communication disorders

BACKGROUND: People with an acquired brain injury (ABI) can struggle to use social media after their injury, due to changes in their cognitive-communication skills, and would like help to improve their skills and connectivity. A focus group study in one Australian brain injury rehabilitation service recently found that ABI rehabilitation professionals are restrictive or reactive (rather than proactive) in their approach to supporting people in using social media after an ABI; however, it is unknown whether this finding reflects practice internationally. **AIM:** To survey a larger international cohort of rehabilitation professionals working with people after ABI to understand their views and experiences of social media use after ABI and to explore ways of addressing social media use during rehabilitation. **METHODS AND PROCEDURES:** Participants were recruited via social media posts and email invitations between July 2020 and July 2022 to complete an online survey of 27 questions across three categories, 'Demographic Information' (5 questions), 'Own social media use' (12 questions), and 'Perspectives on social

media use after ABI' (10 questions). Directed content analysis was used to explore and interpret the data.

RESULT(S): Of the 83 rehabilitation professionals who responded to the survey, 68 data sets met eligibility criteria for analysis. Most respondents were aged between 25 and 55 years (86%), and practiced across Australia (53%), the United Kingdom (24%), the United States (16%), Canada (3%), the European Union (3%) and Asia (1%). Most were speech pathologists (68%), occupational therapists (9%) or clinical neuropsychologists (7%). The mean length of experience working with people with ABI was 14.3 years (SD = 10.6). Participants identified benefits in social media use during ABI rehabilitation for social connection and inclusion, whilst also highlighting the risks and their own limitations in knowledge and expertise. Clinical guidance, policy, funding and resources were recommended to support clinicians to successfully address social media goals during rehabilitation.

CONCLUSION(S): Rehabilitation professionals recommend that social media use be routinely considered during rehabilitation after ABI and report that they need greater access to knowledge, expertise, resources and policy to support this in clinical practice. Addressing social media goals in rehabilitation was reported to be complex and challenging yet rewarding for all involved. Ongoing robust research is urgently required to give rehabilitation professionals an evidence-based framework and resources for assessment and intervention in this space. **WHAT THIS PAPER ADDS:** What is already known on the subject People with an acquired brain injury (ABI) experience challenges in using social media safely and meaningfully after their injury. With little guidance available to support clinical practice, ABI rehabilitation clinicians feel uncertain in their approach to addressing social media goals and want greater access to knowledge, expertise and resources. What this paper adds to existing knowledge This paper provides confirmation of previous work exploring how social media is addressed during rehabilitation and extends on our knowledge through surveying a larger cohort of international ABI rehabilitation professionals. Rehabilitation professionals report that inclusion in online communities is now central to many people's social and occupational endeavours and recommend that social media use be routinely considered during rehabilitation after ABI. When incorporating the use of social media into rehabilitation, clinicians report positive outcomes despite the complexity and challenges faced in doing so. What are the potential or actual clinical implications of this work? Respondents in this study suggested potential approaches and strategies for rehabilitation professionals to consider when supporting social media use after ABI. However, ongoing robust research is urgently required to give rehabilitation professionals an evidence-based framework and resources for assessment and intervention of social media communication skills after brain injury.

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10. Improving Occupational Rehabilitation for People Living with Long COVID

Authors: DeMars J., Durand-Moreau Q., Branton E., Nowrouzi-Kia B., Gross D.P.

Date of publication: 2025

Journal: Journal of occupational rehabilitation

11. The impact of social determinants of health on stroke rehabilitation service utilization measured during acute stroke hospitalization.

Authors: Bonilha H.S., Ma T., Prabhakaran S., Bhadsavle L.J., Belagaje S.R., Blanke D., Henriquez L., Starnes D., Christopher H., Cabral J., Walczak T., Nahab F.

Publication date: 2025

Journal: Topics in Stroke Rehabilitation

Background: Rehabilitation is the primary method of promoting functional recovery post-stroke. Identification of patients for rehabilitation services during the acute stroke hospitalization is essential to delivery of rehabilitation services. Social determinants of health (SDOH) impact health care and health outcomes in a myriad of ways, but it is unknown whether SDOH affects rehabilitation services utilization.

Objective(s): This study elucidates the relationship of, and additional explanatory value of, county-level metrics of SDOH on rehabilitation services utilization during acute inpatient hospitalization for stroke.

Method(s): Using the American Heart Association Get with the Guidelines-Stroke registry and the Institute for Health Metrics and Evaluation data, we investigated the impact of SDOH on rehabilitation services utilization over the years ranging from 2010 to 2019 in hospitalized ischemic stroke or intracerebral hemorrhage stroke patients. Analyses focused on determining which county-level SDOH metrics influenced rehabilitation services utilization using generalized linear mixed models. Akaike Information Criterion was used for model selection.

Result(s): County-level SDOH improved the predictive ability of the models to determine who would be transferred to a rehabilitation facility and who would be referred for rehabilitation after discharge. We found indicators that county-level metrics of high school education ($p = 0.0003$), being foreign-born ($p < 0.001$), and rurality of the hospital ($p = 0.004$) influenced rehabilitation services utilization.

Conclusion(s): SDOH impact rehabilitation utilization after acute stroke hospitalization. Future studies should focus on both individual- and county-level metrics of SDOH and their impact on access to rehabilitation. This information should be used to develop interventions to improve the equity of rehabilitation utilization after stroke.

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12. Interventions Provided by Physiotherapists to Prevent Complications After Major Gastrointestinal Cancer Surgery: A Systematic Review and Meta-Analysis.

Authors: White S., Mani S., Martin R., Reeve J., Waterland J.L., Haines K.J., Boden I.

Date of publication: 2025

Journal: Cancers.

Background/Objectives: Major surgery for gastrointestinal cancer carries a 50% risk of postoperative complications. Physiotherapists commonly provide interventions to patients undergoing gastrointestinal surgery for cancer with the intent of preventing complications and improving recovery. However, the evidence is unclear if physiotherapy is effective compared to providing no physiotherapy, nor if timing of service delivery during the perioperative pathway

influences outcomes. The objective of this review is to evaluate and synthesise the evidence examining the effects of perioperative physiotherapy interventions delivered with prophylactic intent on postoperative outcomes compared to no treatment or early mobilisation alone.

Method(s): A protocol was prospectively registered with PROSPERO and a systematic review performed of four databases. Randomised controlled trials examining prophylactic physiotherapy interventions in adults undergoing gastrointestinal surgery for cancer were eligible for inclusion.

Result(s): Nine publications from eight randomised controlled trials were included with a total sample of 1418 participants. Due to inconsistent reporting of other perioperative complications, meta-analysis of the effect of physiotherapy was only possible specific to postoperative pulmonary complications (PPCs). This found an estimated 59% reduction in risk with exposure to physiotherapy interventions (RR 0.41, 95%CI 0.23 to 0.73, $p < 0.001$). Sub-group analysis demonstrated that timing of delivery may be important, with physiotherapy delivered only in the preoperative phase or combined with a postoperative service significantly reducing PPC risk (RR 0.32, 95%CI 0.17 to 0.60, $p < 0.001$) and hospital length of stay (MD -1.4 days, 95%CI -2.24 to -0.58, $p = 0.01$), whilst the effect of postoperative physiotherapy alone was less certain.

Conclusion(s): Preoperative-alone and perioperative physiotherapy is likely to minimise the risk of PPCs in patients undergoing gastrointestinal surgery for cancer. This challenges current traditional paradigms of providing physiotherapy only in the postoperative phase of surgery. A

13. Vocational rehabilitation for people with multiple sclerosis in the national health service of the United Kingdom: A realist evaluation

Authors: De Dios Perez B., Booth V., das Nair R., Evangelou N., Hassard J., Ford H.L., Newsome I., Radford K.

Publication date: 2025

Journal: PLoS ONE

Background There is limited evidence about how vocational rehabilitation (VR) for people with multiple sclerosis (MS) can be delivered through the United Kingdom's (UK) National Health Service (NHS) and how it works. **Aim** To understand the mechanisms and context for implementing a VR intervention for people with MS in the NHS and develop an explanatory programme theory. **Methods** A realist evaluation, including a review of evidence followed by semi-structured interviews. A realist review about VR for people with MS in the NHS was conducted on six electronic databases (PubMed, MEDLINE, PsychINFO, Web of Science, CINAHL, and EMBASE) with secondary purposive searches. Included studies were assessed for relevance and rigour. Semi-structured interviews with people with MS, employers, and healthcare professionals, were conducted remotely. Data were extracted, analysed, and synthesised to refine the programme theory and produce a logic model. **Results** Data from 13 studies, and 19 interviews (10 people with MS, five employers, and four healthcare professionals) contributed to producing the programme theory. The resulting programme theory explains the implementation of VR in the NHS for MS populations, uncovering the complex interplay between the healthcare and employment sectors to influence health and employment outcomes. VR programmes that offer timely support, tailored to the needs of the person with MS, and that support and empower the employee beyond the healthcare context are most likely associated with improved employment outcomes, for example, job retention.

Conclusion Embedding VR support within the NHS requires substantial cultural and organisational change (e.g., increased staff numbers, training, and awareness about the benefits of work). This study emphasises the need to routinely identify people with MS at risk of job loss and follow a collaborative approach to address employment issues. This realist evaluation provides insight on how to improve the quality of care available to people with MS.

14. Reporting of nutritional screening, status, and intake in trials of nutritional and physical rehabilitation following critical illness: a systematic review

Authors: Rabheru R., Langan A., Merriweather J., Connolly B., Whelan K., Bear D.E.

Publication date: 2025

Journal: American Journal of Clinical Nutrition

Background: Surviving critical illness leads to prolonged physical and functional recovery with both nutritional and physical rehabilitation interventions for prevention and treatment being investigated. Nutritional status and adequacy may influence outcome, but no consensus on which nutritional-related variables should be measured and reported in clinical trials exists.

Objective(s): This study aimed to undertake a systematic review investigating the reporting of nutritional screening, nutritional status, and nutritional intake/delivery in randomized controlled trials (RCTs) evaluating nutritional and/or physical rehabilitation on physical and functional recovery during and following critical illness.

Method(s): Five electronic databases (MEDLINE, Web of Science, EMBASE, CINAHL, and Cochrane) were searched (last update 9 August, 2023). Search terms included both free text and standardized indexed terms. Studies included were RCTs assessing nutritional and/or physical interventions either during or following intensive care unit (ICU) admission in adults (18 y or older) with critical illness, and who required invasive mechanical ventilation for any duration during ICU admission. Study quality was assessed using the Cochrane Collaboration Risk of Bias tool for RCTs and descriptive data synthesis was performed and presented as counts (%). **Results:** In total, 123 RCTs (30 nutritional, 87 physical function, and 6 combined) were included. Further, ≥ 1 nutritional variable was measured and/or reported in 99 (80%) of the studies including BMI (n = 69), body weight (n = 57), nutritional status (n = 11), nutritional risk (n = 10), energy delivery (n = 41), protein delivery (n = 35), handgrip strength (n = 40), and other nutritional-related muscle variables (n = 41). Only 3 studies were considered to have low risk of bias in all categories.

Conclusion(s): Few RCTs of physical rehabilitation measure and report nutritional or related variables. Future studies should measure and report specific nutritional factors that could impact physical and functional recovery to support interpretation where studies do not show benefit. This protocol was preregistered at PROSPERO as CRD42022315122.

15. Exploring burnout, perfectionism, and moral injury among UK physiotherapists: A qualitative study on professional fulfilment and well-being.

Authors: Skamagki G., Blackburn L., Biggs D., Kolitsida M., Black C., Shanmugam S.

Publication date: 2025

Journal: PLoS ONE

Background Burnout, perfectionism, and moral injury are prevalent issues among healthcare professionals, including physiotherapists. The demanding nature of the profession, compounded by high workloads, emotional and physical exhaustion, and systemic challenges, has significant implications for the well-being and professional satisfaction of physiotherapists. This study aimed to explore these issues, by providing a qualitative exploration of UK physiotherapists' lived experiences. **Objectives** To explore the lived experiences of UK physiotherapists regarding burnout, perfectionism, and moral injury, and to develop a comprehensive understanding of the personal and professional impacts of these issues to inform the development of effective support systems and interventions. **Methods** This qualitative exploratory study involved semi-structured interviews with 12 UK physiotherapists. Framework approach was used to identify key themes and patterns in the data, providing a nuanced understanding of the challenges faced by physiotherapists. **Results** Four primary themes emerged: (1) Physiotherapy Under Pressure: Workload, Burnout, and Perfectionism, (2) Interpersonal Dynamics and Support Systems, (3) Professional Fulfilment and Identity, and (4) Work-Life Balance and Well-being. Physiotherapists reported high levels of burnout and exhaustion due to relentless workloads, exacerbated by and after the COVID-19 pandemic. Perfectionism further contributed to emotional exhaustion and feelings of inadequacy. Inconsistent management support, bureaucratic challenges, and a lack of career progression opportunities were significant stressors. Effective team dynamics and support systems were crucial in mitigating stress, yet many faced interpersonal challenges such as criticism and bullying. Achieving work-life balance was a persistent struggle, highlighting the need for organisational changes to support flexibility and well-being. **Conclusion** Burnout, perfectionism, and moral injury significantly impact physiotherapists' well-being and professional satisfaction. Addressing these issues requires systemic changes within healthcare organisations to provide robust support systems, flexible working conditions, and opportunities for professional development.

16. Physiotherapy in Text Neck Syndrome: A Scoping Review of Current Evidence and Future Directions.

Author: Piruta J., Kulak W.

Date of publication: 2025

Journal: Journal of Clinical Medicine

Background: Musculoskeletal disorders associated with excessive smartphone use represent a significant health issue. Text neck syndrome is one such disorder within that group, increasingly affecting individuals worldwide across various age groups. The phenomenon of text neck may occur in individuals who frequently and for prolonged periods adopt a forward-flexed neck and head position while looking at the screens of mobile electronic devices.

Various therapeutic methods are used in the treatment of text neck syndrome. However, there is no consensus on text neck rehabilitation, which poses a challenge for physiotherapists.

Objective(s): The aim of this study is to analyze the phenomenon of text neck, with a particular emphasis on current scientific reports regarding the rehabilitation of text neck syndrome. The scoping review was conducted to determine the physiotherapy methods currently used in the treatment of individuals with text neck, assess their impact on symptom reduction, and identify existing knowledge gaps and limitations in the current literature on the rehabilitation of text neck syndrome.

Design(s): A scoping review was conducted on the treatment of text neck syndrome based on electronic databases: PubMed, ResearchGate, Physiotherapy Evidence Database (PEDro), and the Cochrane Library. The databases were searched up to 1 December 2024. The inclusion criteria comprised studies investigating physiotherapy interventions for individuals with text neck, published between 2018 and 2024 and written in English.

Result(s): A total of fifteen papers were reviewed, focusing on various methods used in text neck rehabilitation, including postural correction exercises, stabilization exercises, strengthening and stretching exercises, Pilates, PNF (Proprioceptive Neuromuscular Facilitation), kinesiology taping, Bowen therapy, and manual therapy. Nearly all studies were conducted in the adult population (93%), with the majority of studies taking place in India (60%).

Conclusion(s): In summary, all studies suggest that appropriate physiotherapeutic interventions can provide significant benefits, including pain reduction, posture correction, and improved range of motion in the cervical spine. The best outcomes appear to be achieved by combining various therapeutic techniques. However, further high-quality research is needed to strengthen the evidence and offer reliable recommendations for clinical practice. Additionally, there is limited research on physiotherapy for text neck in the pediatric population, presenting a potential area for future studies.

17. Effect of Acupressure Therapy and Conventional Physiotherapy Exercises vs Conventional Physiotherapy Exercises after 4 weeks on Pain, Stiffness and Physical Function in Patients of Knee Osteoarthritis between 50-65 years of Age.

Authors: Kundnani K., Pavnaskar A.

Publication date: 2025

Journal: International Journal of Health Sciences and Research

Purpose: Previous studies have shown physiotherapy exercises led to improvement in stiffness and physical function, while acupressure acted better on pain. The need of current study is to find out the additive effect of acupressure therapy when used with conventional physiotherapy. **Methodology:** A Quasi-experimental study was conducted on 50 chronic knee pain patients in Pune. The subjects in experimental group received acupressure therapy and conventional physiotherapy exercises and subjects in control group received conventional physiotherapy exercises for 4 weeks (thrice a week supervised). Outcomes were assessed twice i.e., at baseline and at the end of 4 weeks. Means for outcomes were compared.

Result(s): Statistically significant improvement was observed in the values within experimental group (p value:<0.0001*-NPRS and <0.0001*-WOMAC) as well as within control group (p

value:<0.0001-NPRS and <0.0001-WOMAC). The mean difference between the values between control and experimental group did not show statistical significance (p value: 0.560-NPRS and 0.442-WOMAC). Clinically significant improvement was observed in stiffness in experimental group.

Conclusion(s): The effect of acupressure therapy when used along with conventional physiotherapy exercises does not show any added effect on pain, stiffness and physical function.

18. Effect of involving physiotherapists in the management of low back pain at emergency departments: a systematic review.

Authors: Rolving N., Kraemmer J., Rafaelsen C., Jorgensen C.K., Andersen E.D., Sauer A.T., Riis A.

Date of publication: 2025

Journal: Physiotherapy

Objectives: To conduct a systematic review investigating the effects of physiotherapy in emergency departments (EDs) on health care use and patient-reported outcomes for patients referred to EDs due to low back pain (LBP), compared with usual care.

Method(s): A search was conducted in PubMed, Cinahl and Embase in April 2023, and rerun in September 2024. Randomised and quasi-randomised trials and observational studies including adult patients referred to an ED due to LBP were eligible. Study quality was assessed using ROBINS-I and PEDro, and the strength of the evidence was assessed using GRADE.

Result(s): Included studies were three retrospective cohorts, two prospective cohorts and two randomised controlled trials, totalling 4,057 patients. Four of six studies were rated as serious risk of bias, primarily due to limitations in the study design, two studies were rated as moderate risk, and one as low risk. Overall, the studies indicated a positive effect of ED physiotherapy in comparison with usual care in relation to length of stay, imaging and patient satisfaction. For the remaining outcomes on health-care use and patient-reported outcomes, findings were inconclusive. For all outcomes, the certainty of the evidence was considered very low or low.

Conclusion(s): The present review indicates that there may be beneficial effects of involving PTs in the management of patients with LBP in EDs. However, given the very low certainty of evidence the findings should be interpreted with great caution. Future high level evidence studies in the field should therefore be a priority. Registration number PROSPERO: CRD42023420107. Contribution of the Paper: * With this study a thorough description and overview is given of the seven existing studies on physiotherapy management of low back pain in an emergency setting. * Although studies indicate a potentially beneficial effect on patient satisfaction and health care use, the systematic review reveals that existing studies are generally of poor quality, with a low to very low certainty of the evidence. * Very poor descriptions of required level of training of physiotherapists as well as organisation of care pathways are provided in the existing literature. * High quality trials with detailed intervention descriptions are needed if we are to make robust conclusions on the contributions of physiotherapy management of patients with low back pain in emergency settings.

19. Fall Risk Assessment in Acute Rehabilitation: Comparison of Two Assessment Tools.

Authors: Menard H.E., Castro-Pearson S., Dahle N., Edmonds S.W., Kozitza B.J., Webb J.J., Bryant R.A.

Date of publication: 2025

Journal: Rehabilitation nursing : the official journal of the Association of Rehabilitation Nurses

PURPOSE: Many fall risk assessment tools exist. However, few of these fall risk assessment tools have been tested in the acute rehabilitation setting. The purpose of our study was to compare the accuracy of the Hendrich II Fall Risk Model (HIIFRM) and Sunnyview Test Scale in predicting falls. We also identified factors associated with falls in the rehabilitation patient.

DESIGN AND METHODS: In this retrospective cohort study, we extracted electronic health record data from two acute inpatient rehabilitation units and compared the predictive validity of the HIIFRM and the Sunnyview Test Scale.

RESULT(S): Our sample included 134 fallers and 1,667 nonfallers. The HIIFRM and the Sunnyview Test Scale had similar predictive performance with area under the receiver operating characteristic curve (AUC) of .62 and .60, respectively.

CONCLUSION(S): The HIIFRM and the Sunnyview Test Scale had poor performance (AUC < .70) predicting falls in this acute rehabilitation setting. Using a fall risk assessment tool alone does not consider unique risk factors and makes implementation of individualized prevention interventions challenging. Nurses need a framework to use individualized factors to determine high fall risk. Further research is needed to clarify variables specific to the inpatient rehabilitation population. **CLINICAL RELEVANCE:** Current fall risk assessment tools are inadequate in the inpatient rehabilitation setting; an individualized fall prevention plan is recommended to ensure patient safety.

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20. Home-based pulmonary rehabilitation during outpatient-managed acute COPD exacerbation: The latest new PR model?

Author: Rochester C.L.

Publication date: 2025

Journal: Thorax

21. Randomized Controlled Studies on Smartphone Applications and Wearable Devices for Postoperative Rehabilitation after Total Knee Arthroplasty: A Systematic Review.

Authors: Gordon A.M., Nian P., Baidya J., Scuderi G.R., Mont M.A.

Publication date: 2025

Journal: Journal of Arthroplasty

Background: Smartphone and wearable technologies are novel devices for monitoring postoperative mobility and recovery in total knee arthroplasty (TKA) patients. This systematic

review of the highest-level evidence studies evaluated the advantages of these technologies in postoperative care, specifically focusing on: 1) smartphone applications, 2) wearable devices, and 3) their combined use.

Method(s): A systematic literature search from July 26, 2015, to June 13, 2024, identified level 1 and 2 published studies investigating smartphone applications and wearables for monitoring post-TKA recovery. A total of 3,131 studies were screened, with 31 meeting inclusion criteria as follows: 18 focused on applications, eight on wearables, and five on both. The study quality was evaluated using the Coleman methodology scoring. Key metrics analyzed included patient satisfaction scores and adherences, functional outcomes, and pain scores, ranges of motion and gait analyses, and measurements and comparison tools.

Result(s): Among the level 1 and 2 publications, 17 of 18 studies on smartphone applications for postoperative recovery in TKA highlighted benefits, including patient satisfaction, improved gait, optimized pain management through medication scheduling guidance, cost savings, and better functional outcomes. Among the eight studies focused solely on wearable technologies, seven exhibited positive outcomes and demonstrated accuracy in monitoring and effectiveness in gait and motion analysis. Additional benefits included improved recovery outcomes, enhanced return to function, cost reduction, and better pain management through patient interaction and guidance. The five studies, which integrated both applications and wearables, corroborated these findings, emphasizing patient satisfaction and overall mobility enhancement at three months postsurgery.

Conclusion(s): Smartphone applications and wearable devices offer enhancements in postoperative rehabilitation following TKA. Randomized trials validate their accuracy, effectiveness, and utility in this context. Improved adherence to care plans and medication schedules emerged as recurrent findings. These technologies and resultant data not only provide direct patient benefits but also promise potential cost savings.

22. Occupational therapy interventions in facilitating return to work in patients with traumatic brain injury: A systematic review

Authors: Mullins A., Scalise O., Carpio-Paez B., DeShaw V., Jennings K., Kitchens R., Hilton C., Mani K.

Publication date: 2025

Journal: Work

BACKGROUND: Returning to work is one of the common challenges faced by survivors of traumatic brain injury following their injury. A few reviews to date have examined the occupational therapy interventions related to return-to-work post TBI.

OBJECTIVE(S): To examine the interventions that fall under the purview of the field of occupational therapy in facilitating return to work post mild, moderate, or severe traumatic brain injury.

METHOD(S): The following databases were searched: CINAHL, Ovid, PsychInfo, PubMed, & Scopus. Fifteen articles met the inclusion criteria (articles published within the past 10 years, adults, & received rehabilitation services for return to work). The Preferred Reporting Items for Systematic Reviews and Meta Analyses was used to guide this review.

RESULT(S): The most effective intervention approaches that fall under the purview of occupational therapy practice to facilitate return to work in individuals with traumatic brain injury included the use of (i) vocational and work hardening rehabilitation interventions, (ii) a multidisciplinary approach to care, (iii) mental health and cognition focused interventions, and (iv) the Model of Occupational Self Efficacy. Interventions must consider both client and work-related factors to ensure successful outcomes.

CONCLUSION(S): The articles included in this review provided moderate level evidence that multidisciplinary and holistic approaches lead to successful return to work and community reintegration outcomes for individuals with traumatic brain injury. Focusing on client and work-related factors through vocational rehabilitation, cognitive and mental health interventions, and client-centered models of care is recommended to yield better return to work outcomes for traumatic brain injury survivors.

23. Impact of education in patients undergoing physiotherapy for lower back pain: a level I systematic review and meta-analysis.

Authors: Migliorini F., Maffulli N., Schafer L., Manocchio N., Bossa M., Foti C., Betsch M., Kubach J.

Date of publication: 2025

Journal: European journal of trauma and emergency surgery : official publication of the European Trauma Society

INTRODUCTION: Lower back pain (LBP) is one of the most common musculoskeletal disorders in modern society, with a lifetime incidence of up to 90%. According to most national and international guidelines, educational interventions play a central role in the multimodal treatment of LBP. This systematic review and meta-analysis investigated the impact of educational interventions on pain and disability in patients with LBP undergoing physiotherapy compared to patients without educational interventions undergoing physiotherapy.

METHOD(S): In October 2024, a comprehensive computer-aided search was performed to assess the online databases PubMed, Web of Science, Google Scholar, and Embase. The search followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) criteria with an established PICOTD algorithm. Two authors independently performed the data extraction and risk of bias evaluation. The primary outcome measures extracted were a pain score (VAS or NRS) and the Roland Morris Disability Questionnaire (RMQ).

RESULT(S): Data from 8152 patients were retrieved. The mean length of follow-up was 6.2 +/- 3.9 months, the mean length of symptom duration was 66.7 +/- 51.6 months, and the mean age of the patients was 46.7 +/- 9.2 years. Compared to physiotherapy alone, additional education did not reduce pain ($P = 0.4$) or disability according to the RMQ ($P = 0.9$).

CONCLUSION(S): The addition of education did not impact pain and disability in patients undergoing physiotherapy for chronic non-specific LPB. **LEVEL OF EVIDENCE:** Level I, systematic review and meta-analysis of RCTs.

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24. Number of physiotherapy sessions in work-related absenteeism due to musculoskeletal disorders, by gender, age and occupation. A retrospective cohort study.

Authors: Rodriguez-Bago M., Ronda-Perez E., Molina-Vega E., Sampere-Valero M., Martinez-Martinez J.-M.

Publication date: 2025

Journal: Work

BACKGROUND: The number of physiotherapy sessions needed to treat musculoskeletal conditions varies in the literature; age and gender may partly explain the discordant reports. However, no research has analysed whether occupation may influence this outcome in the working population.

OBJECTIVE(S): To assess the number of physiotherapy sessions performed for low back pain (LBP), cervicalgia (CG), and whiplash syndrome (WS) in workers on sickness absence, according to gender, age, and occupation.

METHOD(S): In this retrospective cohort study, the outcome variable was the number of physiotherapy sessions needed to recover from LBP, CG, and WS. Explanatory variables were sex, age, occupation, year when physiotherapy ended, and treatment centre. The adjusted median differences in the number of sessions (MDa) were calculated.

RESULT(S): Older workers (55-65 years) needed a median of 2.6 additional sessions for LBP, 3.0 more sessions for CG, and 3.6 for WS. Men underwent fewer sessions than women (LBP and CG: MDa -0.9 sessions; WS: MDa -1.7 sessions). Compared to crafts and related trades workers, plant and machine operators and assemblers required more sessions to recover from LBP (MDa 0.7), as did service and sales workers (MDa 0.7). In CG and WS, differences were observed for technicians and associate professionals (MDa 1.3 and MDa 1.7, respectively), and for professionals (MDa 2.4 and MDa 1.6). Clerical support workers also needed significantly more sessions for CG.

CONCLUSION(S): The number of sessions required to recover from LBP, CG, and WS in workers on work-related sickness absence is different according to gender, age, and occupation.

25. Gender-Affirming Care Is Not Standard Care in Occupational Therapy: A Scoping Review.

Authors: Stugart L.K., Larson S.C., Lipsey K.L., Owens G., Hoyt C.R.

Publication date: 2025

The American journal of occupational therapy : official publication of the American Occupational Therapy Association. 79(2) (no pagination), 2025. Date of Publication: 01 Mar 2025.

IMPORTANCE: The transgender and gender-diverse (TGD) community faces significant health care disparities, including elevated rates of mental health issues, poverty, and barriers to accessing affirming care. Occupational therapy practitioners are ethically obligated to provide gender-affirming care, yet there are no practice guidelines for such care.

OBJECTIVE(S): To examine the landscape of gender-affirming care within occupational therapy practice, aiming to identify gaps for future research and guidelines. **DATA SOURCES:** Six databases (MEDLINE, EMBASE, Scopus, PsycINFO, CINAHL, Web of Science). Search dates ranged from database inception to September 19, 2023. **STUDY SELECTION AND DATA COLLECTION:** We followed Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) and Joanna Briggs Institute guidelines for all methodologies. Studies were included if they described gender-affirming care, included language related to the transgender and gender-diverse community, and mentioned occupational therapy. Studies were excluded if they were not peer-reviewed or did not include an intervention. **FINDINGS:** A total of 614 studies were identified, and 17 were included. Of the included studies, the majority were qualitative (n = 9) and from the United States or Canada. Published research highlighted clinicians' need for more training in gender-affirming care and suggested diverse modalities to bridge gaps in working with TGD individuals. **CONCLUSIONS AND RELEVANCE:** This review underscores the urgent need for targeted research to address TGD individuals' specific needs in occupational therapy practice. Future efforts should focus on developing and evaluating gender-affirming care interventions, expanding training modalities, and promoting inclusive care within occupational therapy. **Plain-Language Summary:** The transgender and gender-diverse (TGD) community often encounters obstacles in accessing health care, including mental health issues and barriers to affirming care. Occupational therapy practitioners play a crucial role in providing gender-affirming care, yet there is a lack of clear guidelines for doing so. This study aimed to examine the current state of gender-affirming care in occupational therapy and identify areas for improvement, ultimately benefiting both practitioners and clients. Future research should focus on developing and evaluating gender-affirming care interventions, expanding training modalities, and promoting inclusive care within occupational therapy. **Positionality Statement:** The authorship team represents one individual who identifies as nonbinary and four who identify as cisgender. Most of the authors identify as White. Three authors identify as LGBTQ+. Two authors have prior experience writing scoping reviews.

26. Northern Ireland ovarian cancer prehabilitation project.

Authors: McMullan J.C., Lee D., Ranaghan L., Gowan N., McWilliams L., McGreevy B., O'Hagan D., Nugent B., Dobbs S.

Publication date: 2025

Journal: BMJ Open Quality

Patients with ovarian cancer are often diagnosed late, in advanced stages (stages III-IV) and are often deconditioned due to disease burden. Frailty is reported in up to 60% of gynaecological oncology patients and many report malnutrition, anxiety and depression. As surgery is the mainstay of treatment for ovarian cancer, with maximum surgical effort being a priority, patients are at increased risk of perioperative morbidity and mortality. Multimodal prehabilitation aims to improve the functional capacity of surgical patients. Prehabilitation commonly includes physical, nutritional, medical optimisation, smoking cessation and emotional well-being interventions. Many surgical specialties have well established evidence for the use of prehabilitation showing a reduction in length of stay and perioperative complications. There is, however, limited evidence for the use of prehabilitation in the surgically vulnerable group of patients with advanced ovarian cancer. This project aimed to

introduce a multimodal prehabilitation pathway for patients with advanced ovarian cancer. All patients with advanced ovarian cancer were included, regardless of the treatment modality decided at the regional gynaecological oncology multidisciplinary team meeting. The pathway included exercise, nutritional and psychological interventions. The outcome measures included the Rockwood Frailty Score, 6 min Walk Test (6MWT), 30 s Chair to Stand test, grip strength and Eastern Cooperative Oncology Group performance status as a measure of functional capacity. Nutritional intervention outcomes included the Malnutrition Universal Screening Tool (MUST) score, Body mass index and mid-arm circumference. The psychological intervention outcomes included a holistic needs assessment, the distress thermometer and EQ-5D-5L quality of life status. Of the 75 patients enrolled, 45 (60%) completed the project. In patients who completed the project improved 6MWT and 30-CST was observed in 67% and 44%, respectively, while 67% of patients with moderate to extreme anxiety/depression scores reported lowering from baseline level and 71% of patients with medium to high-risk MUST scores baseline weight was maintained or increased.

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