

Rehabilitation

Current Awareness Bulletin

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1. Effect of Kinesio taping versus mechanical cervical traction combined with physiotherapy program on chronic neck pain in young female university students

Authors: Abd-Eltawab, Amany and Ameer, Mariam A.

Publication Date: 2024

Journal: Hong Kong Physiotherapy Journal (World Scientific) 44(1), pp. 69-78

Abstract: Background: Mechanical neck pain is common among young female university students and can lead to disability and reduced physical activity. Objectives: The aim of this study was to compare the effect of Kinesio taping (KT) to mechanical cervical traction (MCT) on young female university students with chronic neck pain. Methods: Sixty young female university students with mechanical neck pain participated in this study; their ages ranged from 19 years to 23 years. They were assigned to three equal groups: the control group (A) received infrared, massage, stretching, and strengthening exercises three days per week for 6 weeks. Experimental group B received cervical traction in addition to the same program as the control, and experimental group C received KT in addition to the same program as the control group. Absolute pain intensity by the visual analogue scale (VAS) and neck disability index (NDI) were measured pre-and post-treatment intervention. Data were gathered at baseline, and after 6 weeks of intervention for three groups. Results: The MANOVA test showed a significant reduction in NDI and pain level after 6 weeks between pre-and post-treatment intervention in group B ($P < 0.001$ and $P < 0.001$, respectively). There was a significant reduction in pain after 6 weeks in group C. There was also a significant reduction in NDI and pain level after 6 weeks in group B versus control group ($P < 0.001$ and $P = 0.001$, respectively). In addition, a significant reduction in pain level and NDI after 6 weeks was detected in group B compared to group C ($P < 0.001$, $P = 0.014$, respectively) while a significant reduction in pain level only between the control group (A) and group C was detected ($P < 0.001$). Conclusion: In young female university students with mechanical neck pain, cervical traction combined with physiotherapy program was found to be more effective than KT with physiotherapy program or physiotherapy program alone in reducing pain and enhancing functional abilities after 6 weeks. This will help physiotherapists make more informed decisions concerning the clinical effects of MCT.

2. Refining and adapting the measurement properties of evidence-based practice measures for physiotherapy students

Authors: Al Zoubi, Fadi,M.;Bussières, André;Chan, Hoi Wai;Leung, Kit Yat;Ng, Yui Yin;Lau, Ka Chun;Ngai, Shirley P. C.;Tsang, Sharon M. H.;Wong, Arnold Y. L. and Thomas, Alik

Publication Date: 2024

Journal: PloS One 19(3), pp. e0298611

Abstract: Objective: There is a lack of reliable and valid evidence-based practice (EBP) measures for physiotherapy students. This study validated EBP-student (EBP-S) measures for physiotherapy students.; Methods: EBP measures developed from previous research were cross-culturally validated for use by physiotherapy students. The adapted EBP-S consisted of six measures: use of EBP, EBP activities, EBP knowledge, self-efficacy for EBP, attitudes towards EBP, and perceptions of the teaching and assessment of EBP in the curriculum. The final version was completed by physiotherapy students ($n = 335$). The psychometric properties for each EBP-S measure were estimated, including construct validity using Rasch model, internal consistency reliability using person separation index (PSI), test-retest reliability using intraclass correlation coefficient (ICC), and differential item functioning (DIF).; Results: Two formative measures (use of EBP and EBP activities) were only linguistically modified for use with students. A Rasch model was applied to the other four reflective measures. For knowledge, 55% (6/11) items fit the Rasch model with chi-square fit statistic (χ^2) = 34.46, $p = 0.08$; PSI = 0.85. For self-efficacy, 89% (8/9) items fit the Rasch model with $\chi^2 = 25.11$, $p = 0.80$; PSI = 0.89. For attitudes, 62% (8/13) items fit the Rasch model with $\chi^2 = 61.49$, $p = 0.00$; PSI = 0.71. For perception of the teaching and assessment of EBP in the curriculum, 62% (8/13) items fit the Rasch model with $\chi^2 =$

80.99, $p = 0.45$; $PSI = 0.92$. perception of the teaching and assessment of EBP in the curriculum showed DIF in three items. The ICCs ranged between 0.80 and 0.98.; Conclusions: The EBP-S measures were validated for physiotherapy students, including the testing of psychometric properties, which were not tested in the original studies. Further refinements should be considered for the use of the EBP-S with other groups of students or if changes are applied to the current curriculum.; Competing Interests: The authors have declared that no competing interests exist. (Copyright: © 2024 Al Zoubi et al. This is an open access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.)

3. Roadmap for Connecting Cancer Rehabilitation With Survivorship to Improve Patient Outcomes and Clinical Efficiency

Authors: Alfano, Catherine M.;Pugh, Terrence M.;Tortorella, Brooke;Jacob, Regina A.;Mitchell, Charles H. and Raj, Vishwa S.

Publication Date: 2024

Journal: American Journal of Physical Medicine & Rehabilitation 103, pp. S10-S15

Abstract: An evolved model of comprehensive cancer care is needed that begins at cancer diagnosis to proactively manage cancer treatment toxicities and optimize patient health, function, and well-being. Building new care models requires connecting oncology, primary care, and specialized clinicians from many disciplines including cancer rehabilitation. Having a vision for an evolved standard of comprehensive cancer care is a requirement, but it is not enough to bring an innovative clinical program to life and sustain it over the long term. To inform the development of new clinical programs, two example programs are presented that successfully integrate cancer rehabilitation services along with details of a three-step process these programs used to facilitate their success and build robust business models that ensure their sustainability. Following the roadmap for growth presented here, gaining input from stakeholders and ensuring their buy-in, leveraging existing programmatic priorities, as well as developing a strategic growth plan can help clinical innovators ensure that new programs anticipate and continually meet the needs of oncology, primary care, subspecialty care, and programs, while addressing the business needs of administrators and improving the experience for patients.

4. How does the built environment affect patient safety in relation to physical activity? Experiences at a rehabilitation center

Authors: Annemans, Margo;Van Dyck, Delfien and Heylighen, Ann

Publication Date: 2024

Journal: Applied Ergonomics 116, pp. N.PAG

5. Effects of structured protocolized physical therapy on the duration of mechanical ventilation in patients with prolonged weaning

Authors: Bickenbach, Johannes;Fritsch, Sebastian;Cosler, Sophia;Simon, Yvonne;Dreher, Michael;Theisen, Silke;Kao, Joyce;Hildebrand, Frank;Marx, Gernot and Simon, Tim Philipp

Publication Date: 2024

Journal: Journal of Critical Care 80, pp. 154491

Abstract: Purpose: 20% of patients with mechanical ventilation (MV) have a prolonged, complex weaning process, often experiencing a condition of ICU-acquired weakness (ICUAW), with a severe decrease in muscle function and restricted long-term prognosis. We aimed to analyze a protocolized, systematic approach of physiotherapy in prolonged weaning patients and hypothesized that the

duration of weaning from MV would be shortened.; Methods: ICU patients with prolonged weaning were included before (group 1) and after (group 2) introduction of a quality control measure of a structured and protocolized physiotherapy program. Primary endpoint was the tested dynamometric handgrip strength and the Surgical Intensive Care Unit Optimal Mobilization Score (SOMS). Secondary endpoints were weaning success rate, ventilator-free days, hospital mortality, the prevalence of ICUAW, infections and delirium.; Results: 106 patients were included. Both the SOMS and the handgrip test were significantly improved after introducing the program. Despite no differences in weaning success rates at discharge, the total length of MV was significantly shorter in group 2, which also had lower prevalence of infection and higher probability of survival.; Conclusions: Protocolized, systematic physiotherapy resulted in an improvement of the clinical outcome in patients with prolonged weaning. Results were objectifiable with the SOMS and the handgrip test.; Competing Interests: Declaration of Competing Interest The Authors declare that there is no conflict of interest. (Copyright © 2023 The Authors. Published by Elsevier Inc. All rights reserved.)

6. A Feasibility Randomized Controlled Trial of Prehabilitation During Neoadjuvant Chemotherapy for Women with Breast Cancer: A Mixed Methods Study

Authors: Brahmbhatt, Priya;Look Hong, Nicole,J.;Sriskandarajah, Apishanthi;Alavi, Nasrin;Selvadurai, Sarah;Berger-Richardson, David;Lemon-Wong, Sharon;Mascarenhas, Joanna;Gibson, Leslie;Rapier, Tracey;Isenberg-Grzeda, Elie;Bernstein, Lori J.;Santa Mina, Daniel and Wright, Frances C.

Publication Date: 2024

Journal: Annals of Surgical Oncology 31(4), pp. 2261-2271

Abstract: Background: Limited data exist regarding the role of multimodal prehabilitation during neoadjuvant chemotherapy (NACT) for breast cancer. Determining large trial feasibility and identifying signals of prehabilitation benefit are needed.; Patients and Methods: We conducted a randomized controlled feasibility trial of multimodal prehabilitation versus usual care during NACT among women diagnosed with non-metastatic breast cancer. Intervention participants received an individualized exercise program, dietetic support, and stress management counseling during NACT. The trial assessed feasibility via rates of recruitment, attrition, adherence, and study-related adverse events. Physical fitness (Six Minute Walk Test, grip strength, anthropometrics) and patient-reported outcomes were assessed at baseline, after NACT completion, and 6 months after surgery as exploratory outcomes, and analyzed using linear mixed effects models. Qualitative data were collected from a subsample to understand feasibility and acceptability of prehabilitation.; Results: A total of 72 participants were enrolled from the 123 eligible patients (recruitment rate of 53%). There was a 13% attrition rate and no intervention-related adverse events. Participants in the prehabilitation group had better 6-min walk distance at the post-chemotherapy timepoint between group difference of 49.43 m, 95% confidence interval (CI) - 118.1, 19.2] and at the post-surgery timepoint (27.3, 95% CI -96.8, 42.2) compared with the control group. Prehabilitation participants reported better quality of life, less fatigue, and improved physical activity levels compared with usual care participants. Interviews revealed that the intervention had a positive impact on the treatment experience.; Conclusions: This study demonstrated feasibility and improvement in physical and psychosocial outcomes. Larger trials assessing intervention efficacy to confirm indications of prehabilitation benefit are warranted. (© 2024. Society of Surgical Oncology.)

7. A Survey of Clinical Practice Patterns of Physical Therapists for the Use of Ankle-Foot Orthoses or Functional Electrical Stimulation Poststroke

Authors: Brown, Lisa;Johnston, Therese E.;Keller, Sarah and Denzer-Weiler, Caitlin

Publication Date: 2024

Journal: Journal of Prosthetics & Orthotics (JPO) 36(2), pp. 124-132

Abstract: Objective: The aims of this study were (1) to understand the practice patterns and decision-

making factors of physical therapists (PTs) when choosing ankle-foot orthoses (AFOs) or functional electrical stimulation (FES) for patients with mobility deficits secondary to poststroke hemiplegia and (2) to explore perceived gaps in knowledge to inform development of a clinical practice guideline (CPG). Methods: A mixed-methods web-based survey collected quantitative and qualitative data from practicing PTs. Descriptive analysis of quantitative data and thematic content analysis of the qualitative data were completed. Results: The 103 PTs were practicing clinicians with a doctoral degree and specialized board certification. A higher level of confidence with AFOs compared with FES was reported, along with increased inclusion of AFOs compared with FES for assessments and treatments. The PTs considered outcomes across the International Classification of Functioning, Disability and Health (ICF) when choosing devices, noting barriers in access and reimbursement as influential factors in clinical decision making. Fewer than 50% participated in continuing education on AFO or FES. Perceived knowledge gaps and educational needs included assessment and intervention strategies to support clinical decision making. The PTs considered themselves influential in the decision-making process and more than 95% of the respondents replied that a CPG on AFO and FES poststroke would impact clinical practice. Conclusion: Themes related to education, clinical decision-making, access, and reimbursement were identified. A CPG may provide valuable information to address gaps in knowledge to improve clinical practice and decision-making. Clinical Relevance: This research aims to inform the development of a CPG to address needs and gaps in knowledge identified by practicing clinicians. The information gained will inform knowledge translation strategies to promote best practices when implementing AFO and FES to improve activity and participation levels of individuals poststroke.

8. Rehabilitation Interventions in Head and Neck Cancer: A Scoping Review

Authors: Cheng, Jessica T.; Ramos Emos, Marc; Leite, Victor; Capozzi, Lauren; Woodrow, Lindsey E.; Gutierrez, Carolina; Ngo-Huang, An; Krause, Kate J.; Parke, Sara C. and Langelier, David Michael

Publication Date: 2024

Journal: American Journal of Physical Medicine & Rehabilitation 103, pp. S62-S71

Abstract: Objective: The aim of the study is to identify and appraise current evidence for rehabilitation interventions in head and neck cancer. Design: A previously published scoping review spanning 1990 through April 2017 was updated through January 11, 2023 and narrowed to include only interventional studies (Arch Phys Med Rehabil. 2019;100(12):2381–2388). Included studies had a majority head and neck cancer population and rehabilitation-specific interventions. Pairs of authors extracted data and evaluated study quality using the PEDro tool. Results were organized by intervention type. Results: Of 1338 unique citations, 83 studies with 87 citations met inclusion criteria. The median study sample size was 49 (range = 9–399). The most common interventions focused on swallow (16 studies), jaw (11), or both (6), followed by whole-body exercise (14) and voice (10). Most interventions took place in the outpatient setting (77) and were restorative in intent (65 articles). The overall study quality was fair (median PEDro score 5, range 0–8); none were of excellent quality (PEDro >9). Conclusions: Most head and neck cancer rehabilitation interventions have focused on restorative swallow and jaw exercises and whole-body exercise to address dysphagia, trismus, and deconditioning. More high-quality evidence for head and neck cancer rehabilitation interventions that address a wider range of impairments and activity and social participation limitations during various cancer care phases is urgently needed to reduce head and neck cancer-associated morbidity.

9. How much does it cost to be fit for operation? The economics of prehabilitation

Authors: Crişan, Iulia; Slankamenac, Ksenija and Bilotta, Federico

Publication Date: 2024

Journal: Current Opinion in Anaesthesiology 37(2), pp. 171-176

Abstract: Purpose of Review: Prehabilitation before elective surgery can include physical, nutritional, and psychological interventions or a combination of these to allow patients to return postoperatively to

baseline status as soon as possible. The purpose of this review is to analyse the current data related to the cost-effectiveness of such programs.; Recent Findings: The current literature regarding the economics of prehabilitation is limited. However, such programs have been mainly associated with either a reduction in total healthcare related costs or no increase.; Summary: Prehabilitation before elective surgery has been shown to minimize the periprocedural complications and optimization of short term follow up after surgical procedures. Recent studies included cost analysis, either based on hospital accounting data or on estimates costs. The healthcare cost was mainly reduced by shortening the number of hospitalization day. Other factors included length of ICU stay, place of the prehabilitation program (in-hospital vs. home-based) and compliance to the program. (Copyright © 2024 Wolters Kluwer Health, Inc. All rights reserved.)

10. Development of a Cancer Rehabilitation Dashboard to Collect Data on Physical Function in Cancer Patients and Survivors

Authors: Cristian, Adrian;Rubens, Muni;Orada, Romer;DeVries, Kristen;Syrkin, Grigory;DePiero, Mallori T.;Estenoz, Michele;Kothakapu, Sharat;McGranaghan, Peter and Lindeman, Paul R.

Publication Date: 2024

Journal: American Journal of Physical Medicine & Rehabilitation 103, pp. S36-S40

Abstract: Objective: The aim of the study is to describe the development of a cancer rehabilitation dashboard that collects data on physical function for cancer survivors in a cancer institute. Methods: This project was conducted at the Miami Cancer Institute. The cancer rehabilitation dashboard was developed by a team of physicians, biostatistician, and medical informatics teams to record, report and track the physical function of cancer survivors. A multimodal approach to the measurement of physical function was used and included the Patient-Reported Outcome Measurement Information System–Physical Function short form, Patient-Reported Outcome Measurement Information System–Fatigue short form, Timed Up and Go Test, Sit-to-Stand Test in 30-sec test, four-stage balance test, and grip strength. To develop this system, a Cerner Power Form was developed based on the physical function data. To display the data, a dedicated flowsheet was developed and placed within the Oncology Viewpoint in Cerner Millennium. Thus, from inside any patient record, the flowsheet could easily be accessed by providers without leaving normal clinician workflows. Using native functionality, the data can also be shown in graphical format to facilitate dialog with patients and oncology teams. All patient data from the Cerner Power Form discrete task assays were integrated into an existing Oncology Data Warehouse for all patients. The data elements in the Cerner Power Form were identified in the electronic medical record system, loaded into the Oncology Data Warehouse, and related to the other source systems to develop reports and data visualizations such as the cancer rehabilitation dashboard. The cancer rehabilitation dashboard allows visualization of numerous parameters of physical function in cancer survivors evaluated and treated and their change over time. Rendered in Tableau, the cancer rehabilitation dashboard acts as a centralized, interactive data source to analyze and connect clinicians to near real-time data. Results: The cancer rehabilitation dashboard was successfully developed and implemented into a cancer rehabilitation practice in a cancer institute and used to collect and track physical function data for cancer survivors receiving treatment and cancer survivors. This information has been used to direct the treatment plan and educate individual patients about the impact of the cancer and its treatment on physical function as well as oncology teams in a cancer institute. Conclusions: The cancer rehabilitation dashboard provides an insight into the physical function of cancer survivors receiving treatment and cancer survivors using both self-reported and objective metrics. It can be customized to suit the interests of clinicians and researchers wishing to improve the quality of life of this population.

11. Telemedicine in Cancer Rehabilitation: Applications and Opportunities Across the Cancer Care Continuum

Authors: Davidoff, Chanel and Cheville, Andrea

Publication Date: 2024

Journal: American Journal of Physical Medicine & Rehabilitation 103, pp. S52-S57

Abstract: Advancements in telemedicine have revolutionized the landscape of healthcare delivery, with particular implications for cancer rehabilitation. This journal article provides a comprehensive review of the utilization and application of telemedicine in cancer rehabilitation, spanning the entire cancer care continuum. The integration of telemedicine in cancer rehabilitation services is explored from diagnosis through survivorship, addressing the unique challenges and opportunities at each stage.

12. Rehabilitation of patients with inflammatory rheumatic diseases and comorbidities: unmet needs

Authors: Fedorchenko, Yuliya;Mahmudov, Khaiyom;Abenov, Zhumabek;Zimba, Olena and Yessirkepov, Marlen

Publication Date: 2024

Journal: Rheumatology International 44(4), pp. 583-591

Abstract: Comorbidities may contribute to inadequate response to therapy and accelerate disability in various rheumatic diseases such as rheumatoid arthritis (RA), systemic lupus erythematosus (SLE), and psoriatic arthritis (PsA). Cardiovascular, oncological, and infectious comorbidities are common in rheumatic patients. The rehabilitation of patients with inflammatory rheumatic diseases (IRDs) with comorbidities requires a multidisciplinary approach to improving patients' functional mobility, slowing down the disease progression and minimizing the risks of complications. The evidence suggests that cardiac rehabilitation can be implemented in daily practice in patients with IRDs to reduce mortality for those with established risk factors. Physical exercises reduce the severity, improve the clinical course, and reduce hospitalization rates in patients with rheumatic diseases. A rehabilitation program with focused physical therapy can lead to functional improvements and reduction of disease activity in patients with lowered quality of life (QoL). Health professionals should provide evidence-based recommendations for patients with rheumatic diseases and comorbidities to initiate the self-management of their diseases and prevent complications. (© 2024. The Author(s), under exclusive licence to Springer-Verlag GmbH Germany, part of Springer Nature.)

13. Inpatient Rehabilitation of Hematopoietic Stem Cell Transplant Patients: Managing Challenging Impairments and Medical Fragility

Authors: Fu, Jack B. and Morishita, Shinichiro

Publication Date: 2024

Journal: American Journal of Physical Medicine & Rehabilitation 103, pp. S46-S51

Abstract: Hematopoietic stem cell transplants play an important role in the treatment of cancer, particularly hematologic malignancies. These patients can encounter functional impairments unique to hematopoietic stem cell transplant, including deconditioning, cancer-related fatigue, steroid myopathy, graft versus host disease, and capillary leak syndrome. Medical fragility and increased risk of infection may make rehabilitation challenging on the acute care and postacute care settings. Patients admitted to acute inpatient rehabilitation experience a high rate of transfer to the primary acute service and high rate of mortality after transfer back. Physical medicine and rehabilitation physicians can use a number of strategies to mitigate these patients' risk of medical complications including evidence-based predictive models to assist with postacute rehabilitation triage, physiatry-led consult-based rehabilitation, and oncology hospitalist comanagement on inpatient rehabilitation.

14. Outcomes in occupational therapy students' preparation for wheelchair skills training provision

Authors: Giesbrecht, Edward

Publication Date: 2024

Journal: Assistive Technology 36(2), pp. 188-195

Abstract: While wheelchair skills training has demonstrated highly effective outcomes for wheelchair users, prevalence of receiving comprehensive skills training is low. Studies demonstrate a wheelchair skills "bootcamp" significantly improves occupational therapy students' capacity to demonstrate wheelchair skill performance; however, how bootcamps impact students' self-efficacy to deliver skills training in future clinical practice is unclear. This study explored a large dataset collected from nine successive student cohorts attending a structured wheelchair skills bootcamp at a single site. Bootcamps were 4–4.5 hours in duration and content was based on the Wheelchair Skills Program. Mean improvement in skill capacity was 34.8% (95% CI 33.5; 36.1) and wheelchair self-efficacy improved by 28.7% (95% CI 27.3; 30.1). Post-bootcamp self-efficacy scores for Assessment (80.9%), Training (78.5%), Spotting (87.4%), and Documentation (70.4%) all improved by 30–40%. Mandatory bootcamps had lower baseline scores but similar post-bootcamp and change scores as voluntary ones. Cohorts during the COVID-19 pandemic had significantly lower baseline scores for wheelchair skill capacity and confidence as well as self-efficacy with assessment, but significantly larger improvements post-bootcamp. An experiential bootcamp is effective across a wide range of occupational therapy student cohorts in preparing them to deliver wheelchair skills training in future clinical practice.

15. Prehabilitation for Patients with Cancer Undergoing Radiation Therapy: a Scoping Review

Authors: Harris, E. and Marignol, L.

Publication Date: 2024

Journal: Clinical Oncology 36(4), pp. 254-264

Abstract: Prehabilitation is a process of identifying and assessing factors that could compromise the physical and psychological health of patients undergoing cancer treatment and implementing an intervention to combat such concerns. The use of prehabilitation in cancer surgery has yielded positive outcomes in rectal, lung and abdominal cancers. Prehabilitation strategies have potential to improve the management of patients receiving radiation therapy or chemoradiation. The aim of the present study was to map the evidence of the assessment and evaluation of prehabilitation for radiation therapy patients. A database search using EMBASE and PubMed was conducted. The PRISMA guidelines were adhered to. Keywords included prehabilitation, radiation therapy/radiotherapy, chemoradiotherapy/chemoradiation, intervention and exercise. Types of prehabilitation strategy, their purposes and impact, according to cancer site, were analysed. Prehabilitation is most commonly evaluated in head and neck cancer, whereby unimodal, physical interventions manage dysphagia. Prehabilitation for lung cancer demonstrated its ability to widen treatment options for patients. Physical prehabilitation is administered to combat adverse effects of neoadjuvant chemoradiation therapy in patients with rectal cancer. Prehabilitation is adaptive and tailored to specific patient and site needs; thus it is applied across a wide range of cancer sites. More interventions by which radiation therapy is the definitive treatment modality and larger sample sizes within these studies are warranted to increase prehabilitation utilisation for patients undergoing radiation therapy. • The current evidence of cancer prehabilitation is highly variable. • Prehabilitation strategies in the radiation therapy setting are most commonly evaluated in patients with head and neck cancer. • In patients with lung cancer, prehabilitation could improve radiotherapy options. • Prehabilitation programmes can be tailored for any patient. • Standardisation of measurements, larger patient samples and more randomised controlled trials assessing prehabilitation are warranted.

16. Experiences of 'virtual' occupational therapy service delivery in Wales

Authors: Ingham, Laura;Burke, Jan and Purcell, Catherine

Publication Date: 2024

Journal: British Journal of Occupational Therapy 87(3), pp. 152-168

Abstract: Introduction: COVID-19 accelerated the implementation of virtual working at pace, which carries the risk of missed opportunities for shared learning across organisations and services. This study therefore investigated the experiences of 'virtual working' among occupational therapy (OT) staff and students in Wales. The objectives were to establish the meaning of virtual working for occupational therapists (OTs), identify the perceived advantages and disadvantages of the technologies used to support virtual working and explore the specific contextual factors that impact on service delivery. Method: An online questionnaire was completed by 191 registered and unregistered OT staff and students working in Wales, and 11 semi-structured interviews were conducted in a convergent mixed methods design. Results and Findings: The questionnaire data confirmed that the use of virtual working has increased and impacts all areas of service delivery. The semi-structured interviews identified three themes: the art of OT, keeping doors open and looking forward. Conclusion: Virtual working can improve access to services, but one size does not fit all and its use in person centred care should be carefully considered. Virtual working should not compromise high quality service provision and the risks of virtual working to staff's mental and physical health needs to be considered.

17. Provision of dietary education in UK-based cardiac rehabilitation: a cross-sectional survey conducted in conjunction with the British Association for Cardiovascular Prevention and Rehabilitation

Authors: James, Emily;Butler, Tom;Nichols, Simon;Goodall, Stuart and O'Doherty, Alasdair F.

Publication Date: 2024

Journal: British Journal of Nutrition 131(5), pp. 880-893

Abstract: Dietary education is a core component of cardiac rehabilitation (CR). It is unknown how or what dietary education is delivered across the UK. We aimed to characterise practitioners who deliver dietary education in UK CR and determine the format and content of the education sessions. A fifty-four-item survey was approved by the British Association for Cardiovascular Prevention and Rehabilitation (BACPR) committee and circulated between July and October 2021 via two emails to the BACPR mailing list and on social media. Practitioners providing dietary education within CR programmes were eligible to respond. Survey questions encompassed: practitioner job title and qualifications, resources, and the format, content and individual tailoring of diet education. Forty-nine different centres responded. Nurses (65.1 %) and dietitians (55.3 %) frequently provided dietary education. Practitioners had no nutrition-related qualifications in 46.9 % of services. Most services used credible resources to support their education, and 24.5 % used BACPR core competencies. CR programmes were mostly community based (40.8 %), lasting 8 weeks (range: 2–25) and included two (range: 1–7) diet sessions. Dietary history was assessed at the start (79.6 %) and followed up (83.7 %) by most centres; barriers to completing assessment were insufficient time, staffing or other priorities. Services mainly focused on the Mediterranean diet while topics such as malnutrition and protein intake were lower priority topics. Service improvement should focus on increasing qualifications of practitioners, standardisation of dietary assessment and improvement in protein and malnutrition screening and assessment.

18. Mobilisation during mechanical ventilation: A qualitative study exploring the practice of conscious patients, nurses and physiotherapists in intensive care unit

Authors: Lehmkuhl, Lene;Dreyer, Pia;Laerkner, Eva;Olsen, Hanne Tanghus;Jespersen, Eva and Rothmann, Mette Juel

Publication Date: 2024

Journal: Journal of Clinical Nursing (John Wiley & Sons, Inc.) 33(4), pp. 1493-1505

Abstract: Aim: To explore the practice of mobilisation of conscious and mechanically ventilated patients and the interaction between patients, nurses and physiotherapists. Background: Long-term consequences of critical illness can be reduced by mobilisation starting in Intensive Care Units, but implementation in clinical practice is presently sparse. Design: A qualitative study with a phenomenological-hermeneutic approach. Methods: Participant observations in three Intensive Care Units involved twelve conscious mechanically ventilated patients, thirty-one nurses and four physiotherapists. Additionally seven semi-structured patient interviews, respectively at the ward and after discharge and two focus group interviews with healthcare professionals were conducted. The data analysis was inspired by Ricoeur's interpretation theory. The study adhered to the COREQ checklist. Findings: Healthcare professionals performed a balance of support and guidance to promote mobilisation practice. The complexity of ICU mobilisation required a flexible mobility plan. Furthermore, interaction with feedback and humour was found to be 'a leverage' for patient's motivation to partake in mobilisation. The practice of mobilisation found patients striving to cope and healthcare professionals promoting a 'balanced standing by' and negotiating the flexible mobility plan to support mobilisation. Conclusion: The study revealed a need to clarify interprofessional communication to align expectations towards mobilisation of conscious and mechanically ventilated patients. Relevance to Clinical Practice: The study demonstrated the important role of healthcare professionals to perform a stepwise and 'balanced standing by' in adequately supporting and challenging the mobilisation of mechanically ventilated patients. Furthermore, a synergy can arise when nurses and physiotherapists use supplementary feedback and humour, and cooperate based on a flexible situation-specific mobility plan in intensive care.

19. Prediction of Changes in Functional Outcomes During the First Year After Inpatient Stroke Rehabilitation: A Longitudinal Study

Authors: Lin, Yen-Nung;Van Sang, Phan;Chiu, Valeria;Kang, Jiunn-Horng;Liou, Tsan-Hon;Ni, Pengsheng and Chang, Feng-Hang

Publication Date: 2024

Journal: Archives of Physical Medicine & Rehabilitation 105(3), pp. 487-497

Abstract: To identify meaningful changes in patients in 3 functional domains (basic mobility BM], daily activity DA], and applied cognition AC]) after discharge from inpatient stroke rehabilitation and to identify the predictors of 1-year functional improvement. A longitudinal, multicenter, prospective cohort study. The acute care wards of 3 hospitals in the Greater Taipei area of Taiwan. Five hundred patients with stroke in acute care wards (mean age=60±12.2 years, 62% men, N=500). Not applicable. The Mandarin version of the Activity Measure for Post-Acute Care (AM-PAC) short forms were assessed at discharge and 3-, 6-, and 12-month follow-up. The minimal detectable change (MDC) was used to categorize changes in the scores as improved and unimproved at the 4 time points. The mean scores of the AM-PAC BM and DA subscales substantially increased over the first 3 months after discharge (86% of participants exhibited improvement) and slightly increased during the subsequent 9 months (5~26% of participants exhibited improvement). However, the mean score of the AC subscale decreased within the first 3 months and increased over the subsequent 9 months (22-23% of participants exhibited improvement). The BM, AC scores at discharge were the dominant predictors of subsequent functional improvement (P <.05). Patients with a higher functional stage at discharge were more likely to experience significant improvement. This study established the capacity of the AM-PAC to predict functional improvement in 3 domains during the early, middle, and late stages of recovery. The findings can assist clinicians in identifying patients at risk of unfavorable long-term functional recovery and providing such patients with tailored interventions during the early stage of rehabilitation.

20. A scoping review of the use of creative activities in stroke rehabilitation

Authors: Liu, Shuang;Huang, XianYi;Liu, Yan;Yue, Jie;Li, Yu and Chen, Li

Publication Date: 2024

Journal: Clinical Rehabilitation 38(4), pp. 497-509

Abstract: Objective: Clarifying the distinctions between art-based creative activities in the domains of occupational therapy and art therapy in the context of stroke rehabilitation, while also describing the effects of art-based creative activities on stroke rehabilitation. Design: Scoping review. Data source: A systematic search was performed in nine databases (Web of Science, PubMed, EMBASE, Cochrane Library, CINAHL and four Chinese database) from their inception to December 2023. Review methods: The study included randomized and non-randomized controlled trials involving art-based creative activities, as well as qualitative research providing detailed intervention measures. The study focused on stroke patients, with primary outcomes related to patients' physiological recovery, psychological well-being, ADL, etc. Data extraction included information on intervention strategies and study results. Results: Seventeen studies were included, extracting six similarities and differences in creative activity between two domains. Creative activities were observed to have positive impacts on daily living activities, limb motor function, fine motor ability, and emotional well-being in stroke patients. Conclusion: Creative activities, whether in occupational therapy or art therapy, involve providing participants with tangible crafting materials for the creation of artistic works. Future stroke rehabilitation practices should tailor activities and intervention focus based on patients' rehabilitation needs, preferences, and cultural background. The current comprehensive analysis provides initial support for the potential positive role of creative activities in stroke rehabilitation, but further in-depth research is needed to confirm their effectiveness.

21. Prehabilitation provision and practice in the UK: a freedom of information survey

Authors: Pufulete, Maria;Coyle, Vicky;Provan, Debbie;Shaw, Clare;Kunzmann, Peter;Bowrey, David J.;Barlow, Rachael;Grocott, Michael P. W.;Shah, Toral and Atkinson, Charlotte

Publication Date: 2024

Journal: BJA: The British Journal of Anaesthesia 132(4), pp. 815-819

22. Occupational therapy's oversight: How science veiled our humanity

Authors: Reid, Heleen;Hocking, Clare and Smythe, Elizabeth

Publication Date: 2024

Journal: Scandinavian Journal of Occupational Therapy 31(1), pp. 2306585

Abstract: Background: Occupational therapy's connection to positivist science predates the profession's formal beginning, with important contributing knowledge sources coming from mathematics, physics, psychology, and systems theory. While these sources of objective knowledge provide a rational, defensible position for practice, they can only explain a portion of what it means to exist as an occupational being.; Aims/objectives: This article aims to reveal some of the history of science within occupational therapy and reveal the subjective, ontological nature of doing everyday activities that the profession's preoccupation with positivist science has obscured.; Methods: This research used a history of ideas methodology to uncover how occupational therapy perceived people and how practice was conceptualised and conducted between 1800 and 1980s, as depicted in writing of the time.; Conclusion: Analysis showed that, through history, people were increasingly categorised and delimited. Practice also became systematically controlled, moving occupational therapy into a theoretical, scientific, and abstract realm.; Significance: The emphasis placed on objectivity diminishes the attention given to human ways of practicing, where the subjective experience is central to our thinking.

23. Role of Rehabilitation in Spine Tumors

Authors: Ruppert, Lisa and de Vries, Kristen

Publication Date: 2024

Journal: American Journal of Physical Medicine & Rehabilitation 103, pp. S28-S35

Abstract: Primary and metastatic spine tumors can lead to devastating complications, but timely and careful management of these patients can improve outcomes. A multidisciplinary and structured approach is the most effective way to evaluate patients with spine disease and mitigate the risk of complications. The neurologic, oncologic, mechanical and systemic disease framework gives comprehensive guidance to providers regarding appropriate management. Physiatrists play a critical role in these patients' initial evaluation and continued management throughout cancer treatment. Patients with spinal cord involvement have extensive needs, requiring an individualized management approach. Even though patients with nontraumatic spinal cord injury benefit from rehabilitation efforts and have improved outcomes, they are not routinely admitted to inpatient rehabilitation units or referred to outpatient cancer rehabilitation. Ongoing efforts are needed to promote rehabilitation medicine involvement in improving functional outcomes and quality of life for patients with spine involvement.

24. Orthopaedic Manual Physical Therapy: A Modern Definition and Description

Authors: Silvernail, Jason L.;Deyle, Gail D.;Jensen, Gail M.;Chaconas, Eric;Cleland, Joshua;Cook, Chad;Courtney, Carol A.;Fritz, Julie;Mintken, Paul and Lonnemann, M. E.

Publication Date: 2024

Journal: Physical Therapy

Abstract: Currently, orthopaedic manual physical therapy (OMPT) lacks a description of practice that reflects contemporary thinking and embraces advances across the scientific, clinical, and educational arms of the profession. The absence of a clear definition of OMPT reduces understanding of the approach across health care professions and potentially limits OMPT from inclusion in scientific reviews and clinical practice guidelines. For example, it is often incorrectly classified as passive care or incorrectly contrasted with exercise-therapy approaches. This perspective aims to provide clinicians, researchers, and stakeholders a modern definition of OMPT that improves the understanding of this approach both inside and outside the physical therapist profession. The authors also aim to outline the unique and essential aspects of advanced OMPT training with the corresponding examination and treatment competencies. This definition of practice and illustration of its defining characteristics is necessary to improve the understanding of this approach and to help classify it correctly for study in the scientific literature. This perspective provides a current definition and conceptual model of OMPT, defining the distinguishing characteristics and key elements of this systematic and active patient-centered approach to improve understanding and help classify it correctly for study in the scientific literature. (© The Author(s) 2024. Published by Oxford University Press on behalf of the American Physical Therapy Association. All rights reserved. For permissions, please e-mail: journals.permissions@oup.com.)

25. A general theory of rehabilitation: Rehabilitation catalyses and assists adaptation to illness

Authors: Wade, Derick T.

Publication Date: 2024

Journal: Clinical Rehabilitation 38(4), pp. 429-442

Abstract: Background: There is no general theory of rehabilitation, only definitions and descriptions, with the biopsychosocial model of illness as a structure. Objective: To develop a general theory of rehabilitation that explains how healthcare rehabilitation changes outcomes and to evaluate its validity. Need: A general rehabilitation theory would help research, improve services, increase understanding,

modify resource allocation and explain some anomalies, such as how rehabilitation helps when no natural recovery occurs. Building blocks: People adapt to change throughout their lives. Illness is a change, and people adapt to their illness. Adaptation's purpose is to maintain an equilibrium in a person's life. The balanced components are related to Maslow's five needs: basic, safety, affiliation, status and self-fulfilment. The general theory of behaviour suggests that a person's behaviours change to maintain balance, regulated by a central homeostatic mechanism. The theory: Rehabilitation aids adaptation to changes associated with illness through accurate diagnosis and formulation, catalysing adaptation, optimising the environment and assisting the person in making necessary changes by safely practising activities and teaching self-management. Implications: The theory makes the person the central active agent, emphasises the importance of the environment in facilitating adaptation, explains why all conditions may benefit, including progressive and static conditions, suggests that health can be equated to someone maintaining their equilibrium and explains why a small dose may be very effective. Conclusion: The general theory of rehabilitation emphasises the catalytic effects of rehabilitation in facilitating and guiding adaptation and suggests areas for research and improvement.

26. Evaluating stroke rehabilitation using brain functional network and corticomuscular coupling

Authors: Wang, Ting;Wang, Chenghao;Chen, Kai;Yang, Donghui;Xi, Xugang and Kong, Wanzeng

Publication Date: 2024

Journal: The International Journal of Neuroscience 134(3), pp. 234-242

Abstract: Objective: Stroke is the leading cause of disability worldwide. Traditionally, doctors assess stroke rehabilitation assessment, which can be subjective. Therefore, an objective assessment method is required. Methods: In this context, we investigated the changes in brain functional connectivity patterns and corticomuscular coupling in stroke patients during rehabilitation. In this study, electroencephalogram (EEG) and electromyogram (EMG) of stroke patients were collected synchronously at baseline(BL), two weeks after BL, and four weeks after BL. A brain functional network was established, and the corticomuscular coupling relationship was calculated using phase transfer entropy (PTE). Results: We found that during the rehabilitation of stroke patients, the overall connection of the brain functional network was strengthened, and the network characteristic value increased. The average corticomuscular PTE appeared to first decrease and subsequently increase, and the PTE increase in the frontal lobe was significant. Value: In this study, PTE was used for the first time to analyze the relationship between EEG signals in patients with hemiplegia. We believe that our findings contribute to evaluating the rehabilitation of stroke patients with hemiplegia.

27. Time to take play seriously: The Royal College of Occupational Therapists' Occupational Therapy and Play practice guideline

Authors: Ward, Gillian and Payne, Sally

Publication Date: 2024

Journal: British Journal of Occupational Therapy 87(3), pp. 127-128

28. A systematic review and meta-analysis of clinical efficacy of early and late rehabilitation interventions for ischemic stroke

Authors: Wei, Xufang;Sun, Shengtong;Zhang, Manyu and Zhao, Zhenqiang

Publication Date: 2024

Journal: BMC Neurology 24(1), pp. 1-9

29. Improving the standardisation, timeliness and efficiency of the occupational therapy admission process in an older adult inpatient service.

Authors: Ward, Gillian and Payne, Sally

Publication Date: 2023

Journal: Ige JJ. BMJ Open Quality;12(4):e002514.

Abstract:[Our paper provides a clear and replicable account of how improvement in an OT admission process was achieved using quality improvement approaches with balancing measures and an objective measure of sustainability.It produces a reflective account on how collaboration, system thinking and iterative learning within psychologically safe environments can produce sustainable improvement.]

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