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Rehabilitation Therapies

JULY 2017

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Physiotherapy

**Post-operative pleural effusion in a heart transplant recipient: A single-case study of physiotherapy treatment.**

**Author(s):** Polastri, Massimiliano; Savini, Carlo; Di Marco, Luca; Jafrancesco, Giuliano; Semprini, Adriana; Grigioni, Francesco

**Source:** International Journal of Therapy & Rehabilitation; Jul 2017; vol. 24 (no. 7); p. 302-305

**Abstract:** This article focuses on a study which describes the non-invasive therapeutic measures adopted to treat a pleural effusion in a heart transplant recipient during early post-operative recovery. Topics covered include dilated cardiomyopathy, its treatment with pharmacological therapy and pacemakers or implantable cardiac defibrillators, and the case history of a woman with dilated cardiomyopathy, normal coronary arteries and severe right ventricular dysfunction who underwent a heart transplant.

**Database:** CINAHL

**Cognitive representations in low back pain in patients receiving chiropractic versus physiotherapy treatment.**

**Author(s):** Roios, Edite; Paredes, Ana Cristina; Alves, António F.; Pereira, M. Graça

**Source:** Journal of Health Psychology; Jul 2017; vol. 22 (no. 8); p. 1012-1024

**Abstract:** This study focused on cognitive representations of low back pain patients receiving chiropractic (n = 213) versus physiotherapy treatment (n = 125). Variables assessed included satisfaction with care, illness perceptions, beliefs about pain and medicines, attitudes towards doctors and medicine, suffering, adherence and functional incapacity. In the chiropractic treatment, functional incapacity was predicted by painful symptoms, suffering and personal control, and in the physiotherapy treatment by age, pain intensity, positive suffering, care satisfaction, illness identity and medication adherence. The groups differed on all cognitive variables assessed. Interventions should take into consideration cognitive dimensions, across treatment modalities.

**Database:** CINAHL

**Publishing code: an initiative to enhance transparency of data analyses reported in Journal of Physiotherapy.**

**Author(s):** Herbert, Rob; Elkins, Mark

**Source:** Journal of Physiotherapy (Elsevier); Jul 2017; vol. 63 (no. 3); p. 129-130
Abstract: The article highlights the importance of a code of conduct in the publishing of papers in order to enhance the transparency of data analyses reported in the medical journal "Journal of Physiotherapy".

Database: CINAHL

Readers’ Choice Award.

Author(s):
Source: Journal of Physiotherapy (Elsevier); Jul 2017; vol. 63 (no. 3); p. 130-130

Abstract: The article discusses a reader’s choice award given to an article by Professor Harvey L. A. which focuses on physiotherapy rehabilitation for spinal cord injuries.

Database: CINAHL

Gym-based exercise and home-based exercise with telephone support have similar outcomes when used as maintenance programs in adults with chronic health conditions: a randomised trial.

Author(s): Jansons, Paul; Robins, Lauren; O’Brien, Lisa; Haines, Terry

Source: Journal of Physiotherapy (Elsevier); Jul 2017; vol. 63 (no. 3); p. 154-160

Abstract: Question: What is the effectiveness of gym-based exercise versus home-based exercise with telephone follow-up amongst adults with chronic conditions who have completed a short-term exercise program supervised by a health professional? Design: A randomised, controlled trial with concealed allocation, intention-to-treat analysis, and blinded outcome assessment at baseline and 3, 6, 9 and 12 months. Participants: The participants were recruited following a 6-week exercise program at a community health service. Intervention: One group of participants received a gym-based exercise program for 12 months (gym group). The other group received a home-based exercise program for 12 months with telephone follow-up for the first 10 weeks (home group). Outcome measures: Outcome measures included European Quality of Life Instrument (EQ-5D), the Friendship Scale, the Hospital and Anxiety and Depression Scale, Phone-FITT, 6-minute walk test, body mass index and 15-second sit-to-stand test. Results: There was no significant difference between study groups in the primary outcome (EQ-5D visual analogue scale, 0 to 100) across the 12-month intervention period, with an estimate (adjusted regression coefficient) of the difference in effects of 0 (95% CI −5 to 4). The gym group demonstrated slightly fewer symptoms of depression over the 12-month period compared to the home group (mean difference 0.8 points on a 21-point scale, 95% CI 0.1 to 1.6). Conclusion: Similar long-term clinical outcomes and long-term exercise adherence are achieved with the two approaches examined in this study. Participation in gym-based group exercise may improve mental health outcomes slightly more, although the mechanisms for this are unclear because there was no change in the selected measure of social isolation or other measures of health and wellbeing. This finding may also be a Type 1 error. Further research to reproduce these results and that investigates the economic efficiency of these models of care is indicated. Trial registration ACTRN1261001035011.

Database: CINAHL

An app with remote support achieves better adherence to home exercise programs than paper handouts in people with musculoskeletal conditions: a randomised trial.

Author(s): Lambert, Tara E; Harvey, Lisa A; Avdalis, Christos; Chen, Lydia W; Jeyalingam, Sayanthinie; Pratt, Carin A; Tatum, Holly J; Bowden, Jocelyn L; Lucas, Barbara R

Source: Journal of Physiotherapy (Elsevier); Jul 2017; vol. 63 (no. 3); p. 161-167

Abstract: Question: Do people with musculoskeletal conditions better adhere to their home exercise programs when these are provided to them on an app with remote support compared to paper handouts? Design: Randomised, parallel-group trial with intention-to-treat analysis. Participants: Eighty participants with upper or lower limb musculoskeletal conditions were recruited to the trial. Each participant was prescribed a 4-week home exercise program by a physiotherapist at a tertiary teaching hospital in Australia. Participants were randomly assigned via a computer-generated concealed block randomisation procedure to either intervention (n = 40) or control (n = 40) groups. Intervention: Participants in the intervention group received their home exercise programs on an app linked to the freely available website www.physiotherapyexercises.com. They also received supplementary phone calls and motivational text messages. Participants in the control group received their home exercise programs as a paper handout. Outcome measures: Blinded assessors collected outcome measures at baseline and 4 weeks. The primary outcome was self-reported exercise adherence. There were five secondary outcomes, which captured functional performance, disability, patient satisfaction, perceptions of treatment effectiveness, and different aspects of adherence. Results: Outcomes were available on 77 participants. The mean between-group
difference for self-reported exercise adherence at 4 weeks was 1.3/11 points (95% CI 0.2 to 2.3), favouring the intervention group. The mean between-group difference for function was 0.9/11 points (95% CI 0.1 to 1.7) on the Patient-Specific Functional Scale, also favouring the intervention group. There were no significant between-group differences for the remaining outcomes. Conclusion People with musculoskeletal conditions adhere better to their home exercise programs when the programs are provided on an app with remote support compared to paper handouts; however, the clinical importance of this added adherence is unclear. Trial registration ACTRN12616000664822.

Database: CINAHL

Limited interface between physiotherapy primary care and people with severe mental illness: a qualitative study.

Author(s): Lee, Samantha; Waters, Flavie; Briffa, Kathy; Fary, Robyn E

Source: Journal of Physiotherapy (Elsevier); Jul 2017; vol. 63 (no. 3); p. 168-174

Abstract: Questions How do mental health professionals perceive the role of physiotherapists in the care of people with severe and persistent mental illness, and what factors do they perceive as influencing access to physiotherapy services? How do people with severe and persistent mental illness understand the potential role of physiotherapy in their healthcare, and what factors do they perceive as influencing access to physiotherapy services? Design Qualitative study. Participants Twenty-four mental health professionals and 35 people with severe and persistent mental illness. Methods Interview schedules were developed to explore participants’ understanding of physiotherapy, as well as barriers and enablers to service access. Focus groups and interviews were conducted for each group of participants. Transcripts were analysed using an inductive approach to derive key themes. Results Both the mental health professionals and the people with severe and persistent mental illness expressed a limited understanding of the role and relevance of physiotherapy for physical health in mental healthcare. Common barriers to service access were cost, transport and lack of motivation. Likewise, enablers of reduced cost, provision of transport and education about physiotherapy to improve their understanding were identified. The health system structure and perceived lack of mental health knowledge by physiotherapists influenced referrals from mental health professionals. Consequently, education in mental health for physiotherapists and integration of the service within mental health were identified as potential enablers to physiotherapy access. Conclusion Limited understanding about physiotherapy and its relevance to physical health in mental healthcare among mental health professionals and people with severe and persistent mental illness was found to be a key factor influencing service access. Limited physiotherapy presence and advocacy within mental health were also highlighted. There is a need for greater understanding about physiotherapy among stakeholders, and for physiotherapists to be well equipped with skills and knowledge in mental health to facilitate greater involvement.

Database: CINAHL

People attending pulmonary rehabilitation demonstrate a substantial engagement with technology and willingness to use telerehabilitation: a survey.

Author(s): Seidman, Zachariah; Mcnamara, Renae; Wootten, Sally; Leung, Regina; Spencer, Lissa; Dale, Marita; Dennis, Sarah; Mckeough, Zoe

Source: Journal of Physiotherapy (Elsevier); Jul 2017; vol. 63 (no. 3); p. 175-181

Abstract: Questions What is the level of technology engagement by people attending pulmonary rehabilitation? Are participant demographics and level of technology engagement associated with willingness to use telerehabilitation? Design A cross-sectional, multicentre study involving quantitative survey analysis. Participants Convenience sample of people with chronic respiratory disease attending a pulmonary rehabilitation program, maintenance exercise class or support group. Outcome measures The survey assessed the participants’ level of technology engagement (access to and use of devices), self-rated skill competence, access to online health information and willingness to use telerehabilitation. Results Among the 254 people who were invited, all agreed to complete the survey (100% response rate). Among these 254 respondents, 41% were male, the mean age was 73 years (SD 10), and the mean forced expiratory volume in 1 second (FEV 1 ) was 59% predicted (SD 23). Ninety-two percent (n = 233) of participants accessed at least one technological device, of whom 85% (n = 198) reported regularly using mobile phones and 70% (n = 164) regularly used a computer or tablet. Fifty-seven percent (n = 144) of participants self-rated their technology skill competence as good and 60% (n = 153) of all participants were willing to use telerehabilitation. The multivariate regression model found regular computer use (OR 3.14, 95% CI 1.72 to 5.71) and regular mobile phone use (OR 2.83, 95% CI 1.32 to 6.09) were most associated with a willingness to use telerehabilitation. Conclusion People attending metropolitan pulmonary rehabilitation, maintenance exercise classes and support groups had substantial technology engagement,
with high device access and use, and good self-rated technology competence. The majority of participants were willing to use telerehabilitation, especially if they were regular users of technology devices.

**Database:** CINAHL

**Placebo pills provided without deception may help to reduce pain and disability in people with chronic low back pain [commentary].**

**Author(s):** Ferreira, Manuela L

**Source:** Journal of Physiotherapy (Elsevier); Jul 2017; vol. 63 (no. 3); p. 183-183

**Abstract:** A review of the article "Placebo pills provided without deception may help to reduce pain and disability in people with chronic low back pain" by Manuela Perreira, which appeared in the periodical "Journal of Physiotherapy" in July 2017, is presented.

**Database:** CINAHL

**Making Waves: Lung Ultrasound and Physiotherapy Practice.**

**Author(s):** Hayward, Simon

**Source:** Physiotherapy Practice & Research; Jul 2017; vol. 38 (no. 2); p. 71-72

**Database:** CINAHL

**The views and experiences of physiotherapists on physiotherapy service provision for people with neurological conditions in primary care in Ireland: A qualitative study.**

**Author(s):** McDaid, M.; Cleary, O. A.; French, H. P.

**Source:** Physiotherapy Practice & Research; Jul 2017; vol. 38 (no. 2); p. 103-111

**Abstract:** BACKGROUND: Physiotherapy is associated with positive health outcomes and is highly valued among community dwelling people with neurological conditions (pwNC). However, research highlights a deficiency in the quality of physiotherapy services for pwNC in the community setting in Ireland. PURPOSE: The aim of this study was to explore physiotherapists' views and experiences of physiotherapy service provision for pwNC in primary care with a view to providing a platform of knowledge to assist the development and provision of a high quality physiotherapy service. METHODS: A qualitative study employing semi-structured interviews in four primary care sites in Ireland was chosen. Purposive sampling was used to recruit 10 primary care physiotherapists. Face to face semi-structured interviews were conducted with each participant. Interviews were audio-recorded and transcribed verbatim, respondent validation was sought and thematic data analysis was conducted on each interview transcript. RESULTS: Physiotherapists identified pwNC as having distinct needs from the general primary care patient population and they reported challenges meeting these needs, resulting in poorer patient outcomes and occupational stress for the physiotherapist. Lack of organisational support from the Health Service Executive (HSE) was the main inhibiting factor and physiotherapy teamwork and line management support were cited as the main factors facilitating the provision of a quality service for people with neurological conditions in primary care. CONCLUSION: Physiotherapists identified a mismatch between their ideal service standard and the practice reality of physiotherapy service provision for pwNC in primary care in Ireland.

**Database:** CINAHL

**Evidence-based Practice Intentions and Long-term Behaviours of Physiotherapy Graduates Following an Intensive Education Programme.**

**Author(s):** Perraton, L.; Machotka, Z.; Gibbs, C.; Mahar, C.; Kennedy, K.; Grimmer, K.

**Source:** Physiotherapy Research International; Jul 2017; vol. 22 (no. 3)

**Abstract:** Background Assisting physiotherapists to implement research evidence into clinical practice is essential to ensure the quality of practice and encourage lifelong learning and professional progression. However, many physiotherapists report barriers to implementing research, and there is little evidence regarding the sustainability of intended evidence-based practice (EBP) behaviours following EBP education programmes. This paper reports on intended and actual long-term EBP behaviours of physiotherapy students who completed an intensive EBP training programme embedded within a post-graduate coursework programme. Methods An intensive 3-week course in quantitative health research methods and EBP was delivered annually from 2007 to 2014 as part of the programme to national and international students. Following the course, students were asked about their intention of using evidence to inform their future clinical practice. An online survey was used to evaluate EBP behaviours of graduates. Results Of a possible total of 202 students, contact details for 193 students were sourced, and 65 students responded to the survey (34% response rate). At course completion, 174 students (86%) indicated that they intended to use research to guide their clinical decisions at least once a week. At follow-up, most graduates reported
frequently using research to inform their clinical practice; indicated by a mean score of 6.5 (±1.9) from a possible range of 0 (not at all) to 10 (all the time). On average, students reported spending 2.2 (±2.2) hours accessing and reading research evidence per week. The most common barriers to implementing evidence were lack of time, limited access to evidence sources and a perceived lack of generalizability of research findings to specific patient groups. Conclusion Graduates of an intensive EBP training programme embedded within an existing post-graduate physiotherapy programme regularly implemented EBP in clinical practice. Barriers to evidence implementation were time, access to research and perceived lack of generalizability of research findings. Copyright © 2016 John Wiley & Sons, Ltd.

Database: CINAHL

Non-invasive Ventilation as Airway Clearance Technique in Cystic Fibrosis.

Author(s): Rodriguez Hortal, Maria Cecilia; Nygren-Bonnier, Malin; Hjelte, Lena

Source: Physiotherapy Research International; Jul 2017; vol. 22 (no. 3)

Abstract: Background and Purpose For patients with cystic fibrosis, chest physiotherapy is crucial for evacuating airway secretions. Because chest physiotherapy increases energy expenditure, fatigue and dyspnoea, non-invasive ventilation (NIV) could be beneficial for severely ill patients during airway clearance. The aim of the study is to evaluate and compare the effects between NIV and positive expiratory pressure (PEP) on airway clearance. Methods Prospective, randomized trial compares PEP to NIV. Thirty-two subjects, mean age 31 years, mean forced expiratory volume in 1 second 47% (±14) and mean forced vital capacity 69% (±13), completed a 3-month randomized trial comparing NIV with standard PEP treatment as airway clearance technique. Lung functions testing, 6-minute walk test, blood gases, sputum culture and inflammatory parameters were measured before and after the treatment period. Results There was a significant reduction in lung clearance index (LCI) following NIV compared with PEP ( p = 0.01). LCI is performed within the lung function testing. Discussion Non-invasive ventilation was shown to be a good alternative to PEP in chest physiotherapy for patients with cystic fibrosis who are severely ill.

Database: CINAHL

Physiotherapy for Patients with Sciatica Awaiting Lumbar Micro-discectomy Surgery: A Nested, Qualitative Study of Patients' Views and Experiences.

Author(s): Boote, Jonathan; Newsome, Ruth; Reddington, Michael; Cole, Ashley; Dimairo, Munyaradzi

Source: Physiotherapy Research International; Jul 2017; vol. 22 (no. 3)

Abstract: Background and Purpose Sciatica is a common clinical condition that can be extremely painful, disabling and life-changing. Whether conservative or surgical treatment for sciatica secondary to an intervertebral disc prolapse is most effective is still much debated. An important component of conservative treatment is physiotherapy, which aims to promote physical and psychological health for the patient, whilst resorption of the disc takes place. This paper reports a qualitative study of patients’ views and experiences of a bespoke physiotherapy intervention for the treatment of sciatica. Methods A qualitative study nested within a pilot randomized controlled trial of bespoke physiotherapy for the treatment of patients with sciatica awaiting lumbar microdiscectomy surgery. Patients randomized to receive bespoke physiotherapy in the intervention arm of the trial were invited to take part in semi-structured interviews. Twenty-one in-depth, semi-structured interviews took place. All interviews were recorded, fully transcribed and thematically analysed. Results Most patients in the sample found the physiotherapy valuable, appreciating the individual nature of the approach, the exercises to reduce pain and discomfort, techniques for improving functional spinal movement, walking and dynamic posture, and manual therapy and cardiovascular exercise. A small number did not find the physiotherapy of benefit. Sixteen patients in the sample went on to proceed with surgery, but most of these found value in having had the physiotherapy first. Discussion Many patients with sciatica appreciate the value of physiotherapy prior to surgery. Future research should examine patients' experiences of bespoke physiotherapy delivered within primary care.

Database: CINAHL

Physiotherapy Practice: Opportunities for International Collaboration on Workforce Reforms, Policy and Research.

Author(s): Grimmer, K; Morris, J; Kim, S; Milanese, S; Fletcher, W

Source: Physiotherapy Research International; Jul 2017; vol. 22 (no. 3)

Abstract: Background and Purpose Physiotherapy or Physical Therapy (PT) is the most commonly practised allied health discipline globally. International PT workforce reforms are underway to deal with increasing patient numbers, shrinking medical and nursing workforces and lengthy waiting lists. It is timely to consider international differences in PT, with the aims of identifying opportunities for shared learning and
forming stronger international alliances to support consistent and evidence-based workforce reforms. Methods This paper synthesizes freely available information on PT training and service delivery across the UK, Australia and United States (California). The paper considers differences in roles, workplaces, training, legislation and registration, continuing professional development, and accountability. Results There are similarities between UK, Australia and United States (California) in many areas of PT roles, training, registration, legislation and professional practice. However, none has a standard national mechanism by which to demonstrate PT accountability, patient safety or quality care. Moreover, there are different approaches to workforce reforms. There is considerable duplication in physiotherapy governance. Conclusion There are opportunities for targeted international collaborations regarding workforce reforms such as extending scope of practice, and determining and implementing internationally agreed ways of demonstrating PT accountability. The findings of this review have significant policy implications, and identify areas for collaborative research. Copyright © 2016 John Wiley & Sons, Ltd.

Database: CINAHL

The Effectiveness of Vestibular Rehabilitation Interventions in Treating Unilateral Peripheral Vestibular Disorders: A Systematic Review.

Author(s): Arnold, Scott A.; Stewart, Aaron M.; Moor, Heather M.; Karl, Rita C.; Reneker, Jennifer C.

Source: Physiotherapy Research International; Jul 2017; vol. 22 (no. 3)

Abstract: Background and Purpose Various types of vestibular rehabilitation therapy are routinely used in clinical practice to treat unilateral peripheral vestibular hypofunction. The purpose of this systematic review was to compare the effectiveness of vestibular rehabilitation interventions (adaptation, substitution and habituation) in people with unilateral peripheral vestibular hypofunction, exclusionary of benign paroxysmal positional vertigo and Meniere's disease. Methods A search of the literature was conducted using PubMed, CINAHL and Scopus. Studies were eligible for inclusion if they were 1) a randomized controlled trial or randomized clinical trial; 2) written in English; 3) of participants with a unilateral, peripheral vestibular hypofunction; 4) of a conservative treatment approach only; and 5) with human subjects. Quality was assessed by two authors using the Physiotherapy Evidence Database scale. Effect size was calculated to determine the effect of treatment within each study group. Results Seven papers were selected for inclusion. Physiotherapy Evidence Database scores ranged from 2/10 to 7/10. Interventions within the selected studies included combinations of adaptation, habituation, substitution or substitution by itself. Calculated effect sizes, or significance values, revealed that all interventions demonstrated effectiveness. Two studies reported improvements on the dynamic gait index, and a large difference was seen between intervention groups of the two studies. Discussion Results suggest that vestibular therapy for unilateral peripheral vestibular hypofunction is effective. When considering all seven studies included in the review, it is difficult to determine the superiority of one intervention over another in treating unilateral peripheral vestibular hypofunction except when patient outcomes are captured by the dynamic gait index or dizziness handicap inventory. Many studies in this review demonstrate notable biases, suggesting that results should be used with caution. Future research should aim to use a common set of measures to capture outcomes.

Database: CINAHL

"In the physio we trust": A qualitative study on patients’ preferences for physiotherapy.

Author(s): Bernhardsson, Susanne; Larsson, Maria E. H.; Johansson, Kajsa; Öberg, Birgitta

Source: Physiotherapy Theory & Practice; Jul 2017; vol. 33 (no. 7); p. 535-549

Abstract: Background: Patients' preferences should be integrated in evidence-based practice. This study aimed to explore patients' preferences for physiotherapy treatment and participation in decision making. Methods: A qualitative study set in an urban physiotherapy clinic in Gothenburg, Sweden. Individual, semi-structured interviews were conducted with 20 individuals who sought physiotherapy for musculoskeletal disorders. The interviews were recorded, transcribed, and analyzed with qualitative content analysis. Results: An overarching theme, embracing six categories, was conceptualized: Trust in the physiotherapist fosters active engagement in therapy. The participants preferred active treatment strategies such as exercise and advice for self-management, allowing them to actively engage in their therapy. Some preferred passive treatments. Key influencers on treatment preferences were previous experiences and media. All participants wanted to be involved in the clinical decision making, but to varying extents. Some expressed a preference for an active role and wanting to share decisions while others were content with a passive role. Expectations for a professional management were reflected in trust and confidence in physiotherapists’ skills and competence, expectations for good outcomes, and believing that treatment methods should be evidence-based. Conclusion: Trust in the physiotherapist’s competence, as well as a desire to participate in clinical decision making, fosters active engagement in physiotherapy.

Database: CINAHL
Clinical reasoning—embodied meaning-making in physiotherapy.

**Author(s):** Chowdhury, Anoop; Björnbækmo, Wenche Schroder

**Source:** Physiotherapy Theory & Practice; Jul 2017; vol. 33 (no. 7); p. 550-559

**Abstract:** This article examines physiotherapists’ lived experience of practicing physiotherapy in primary care, focusing on clinical reasoning and decision-making in the case of a patient we call Eva. The material presented derives from a larger study involving two women participants, both with a protracted history of neck and shoulder pain. A total of eight sessions, all of them conducted by the first author, a professional physiotherapist, in his own practice room, were videotaped, after which the first author transcribed the sessions and added reflective notes. One session emerged as particularly stressful for both parties and is explored in detail in this article. In our analysis, we seek to be attentive to the experiences of physiotherapy displayed and to explore their meaning, significance and uniqueness from a phenomenological perspective. Our research reveals the complexity of integrating multiple theoretical perspectives of practice in clinical decision-making and suggests that a phenomenological perspective can provide insights into clinical encounters through its recognition of embodied knowledge. We argue that good physiotherapy practice demands tactfulness, sensitivity, and the desire to build a cooperative patient–therapist relationship. Informed by theoretical and practical knowledge from multiple disciplines, patient management can evolve and unfold beyond rehearsed routines and theoretical principles.

**Database:** CINAHL

Sonographic evaluation of diaphragmatic function during breathing control.

**Author(s):** Jones, A. Y. M.; Ngai, S. P. C.; Ying, M. T. C.; Morris, N. R.; Laakso, E. L.; Lee, S. W. Y.; Parry, E.

**Source:** Physiotherapy Theory & Practice; Jul 2017; vol. 33 (no. 7); p. 560-567

**Abstract:** Objective: To investigate the effect of "breathing control" on sonographic diaphragmatic excursion. Method: A prospective, randomized, assessor-blinded study involving 20 physiotherapy students; ten with knowledge of the breathing control technique (Group BC) and ten without (Group CON). All participants were asked to perform a Chester step test. Group BC performed BC, while Group CON adopted their own breathing pattern during recovery after the step test. Respiratory rate and sonographic parameters of the diaphragm including diaphragmatic excursion, speed of diaphragmatic contraction (slope of contraction), and inspiratory time were recorded before and after the step test. Results: All baseline data were similar for both groups except age. Respiratory rate at 1 min post-step test was higher in Group CON (24.6±4.9 bpm) compared to Group BC (15.6 ± 3.8 bpm) (p< 0.001). Post-step test sonographic evaluation demonstrated an increase in diaphragmatic excursion with a significant time and group interaction (F(4,72)= 5.499, p= 0.005). Post hoc analysis revealed that the diaphragmatic excursion was significantly higher in Group BC compared to Group CON at first, second and third minute post-step test. Time and group interactions were not significant in inspiration time (F(4,72)= 2.459, p= 0.082) nor the slope of contraction (F(4,72)= 0.655, p= 0.582). Conclusion: Post-exercise diaphragmatic excursion was higher in participants applying BC. Non-invasive ultrasonography is able to promote objective evaluation of the relationship between breathing techniques and diaphragmatic function.

**Database:** CINAHL

Physiotherapist-led suprascapular nerve blocks for persistent shoulder pain: Evaluation of a new service in the UK.

**Author(s):** Salt, E; van der Windt, D A; Chesterton, L; Mainwaring, F; Ashwood, N; Foster, N E

**Source:** Musculoskeletal care; Jul 2017

**Abstract:** INTRODUCTION This service evaluation explored and reported findings from a new physiotherapist-led service offering suprascapular nerve blocks (SSNBs) to patients with persistent shoulder pain. METHODS We collected data before the SSNB injection and at the 6-weeks and 6-month follow-up from consecutive patients with persistent shoulder pain being treated by physiotherapists or an anaesthetist. Outcomes were patient-reported pain (numerical rating scale [NRS 0 to 10]), patient-specific functional score (PSFS) and health-related quality of life [the EuroQol five dimensions questionnaire (EQ5D-5 L)]. Exploratory analyses compared baseline and follow-up scores within each clinician delivery group (physiotherapists, anaesthetist). RESULTS Forty patients (mean age 57 years [standard deviation (SD) 12]; 63% female) received an SSNB from a physiotherapist, eight patients (mean age 59 years [SD 11]; female 88%) received an SSNB from an anaesthetist. At the 6-week follow-up, the physiotherapy group showed a mean reduction in pain (on the NRS): 2.2 (95% confidence interval [CI] 1.3 to 3.0) and an improvement in function (on the PSFS): -1.3 (95% CI -1.9 to -0.7). Similar changes were found in those treated by the anaesthetist (pain: 1.3 [95% CI -1.18 to 3.80]; function: -1.4 (95% CI -3.18 to 0.35)). Very small changes, that were not statistically significant, were found in EQ5D-5 L scores. At the 6-month follow-
up, the mean reduction in pain (NRS) was maintained at 2.0 (95% CI 0.99 to 2.95) for the physiotherapy group. CONCLUSION The results provide early, exploratory evidence that patients with persistent shoulder pain treated by physiotherapists using palpation-guided SSNBs achieve clinically important changes in pain and function in the short and medium term.

Database: Medline

**Physiotherapists' beliefs and attitudes influence clinical practice in chronic low back pain: a systematic review of quantitative and qualitative studies.**

**Author(s):** Gardner, Tania; Refshauge, Kathryn; Smith, Lorraine; McAuley, James; Hübscher, Markus; Goodall, Stephen

**Source:** Journal of physiotherapy; Jul 2017; vol. 63 (no. 3); p. 132-143

**Abstract:** QUESTION What influence do physiotherapists' beliefs and attitudes about chronic low back pain have on their clinical management of people with chronic low back pain? DESIGN Systematic review with data from quantitative and qualitative studies. Quantitative and qualitative studies were included if they investigated an association between physiotherapists' attitudes and beliefs about chronic low back pain and their clinical management of people with chronic low back pain. RESULTS Five quantitative and five qualitative studies were included. Quantitative studies used measures of treatment orientation and fear avoidance to indicate physiotherapists' beliefs and attitudes about chronic low back pain. Quantitative studies showed that a higher biomedical orientation score (indicating a belief that pain and disability result from a specific structural impairment, and treatment is selected to address that impairment) was associated with: advice to delay return to work, advice to delay return to activity, and a belief that return to work or activity is a threat to the patient. Physiotherapists' fear avoidance scores were positively correlated with: increased certification of sick leave, advice to avoid return to work, and advice to avoid return to normal activity. Qualitative studies revealed two main themes attributed to beliefs and attitudes of physiotherapists who have a relationship to their management of chronic low back pain: treatment orientation and patient factors. CONCLUSION Both quantitative and qualitative studies showed a relationship between treatment orientation and clinical practice. The inclusion of qualitative studies captured the influence of patient factors in clinical practice in chronic low back pain. There is a need to recognise that both beliefs and attitudes regarding treatment orientation of physiotherapists, and therapist-patient factors need to be considered when introducing new clinical practice models, so that the adoption of new clinical practice is maximised.

Database: Medline

**Give patients direct access to physiotherapy. They want it, and it would benefit GPs too.**

**Author(s):** Karen, Middleton

**Source:** British journal of sports medicine; Jul 2017; vol. 51 (no. 13); p. 1041

Database: Medline

**Description of interventions is under-reported in physical therapy clinical trials.**

**Author(s):** Hariohm, K; Jeyanthi, S; Kumar, J Saravan; Prakash, V

**Source:** Brazilian journal of physical therapy; 2017; vol. 21 (no. 4); p. 281-286

**Abstract:** BACKGROUND Amongst several barriers to the application of quality clinical evidence and clinical guidelines into routine daily practice, poor description of interventions reported in clinical trials has received less attention. Although some studies have investigated the completeness of descriptions of non-pharmacological interventions in randomized trials, studies that exclusively analyzed physical therapy interventions reported in published trials are scarce. OBJECTIVES To evaluate the quality of descriptions of interventions in both experimental and control groups in randomized controlled trials published in four core physical therapy journals. METHODS We included all randomized controlled trials published from the Physical Therapy Journal, Journal of Physiotherapy, Clinical Rehabilitation, and Archives of Physical Medicine and Rehabilitation between June 2012 and December 2013. Each randomized controlled trial (RCT) was analyzed and coded for description of interventions using the checklist developed by Schroter et al. RESULTS Out of 100 RCTs selected, only 35 RCTs (35%) fully described the interventions in both the intervention and control groups. Control group interventions were poorly described in the remaining RCTs (65%). CONCLUSIONS Interventions, especially in the control group, are poorly described in the clinical trials published in leading physical therapy journals. A complete description of the intervention in a published report is crucial for physical therapists to be able to use the intervention in clinical practice.

Database: Medline
Gym-based exercise and home-based exercise with telephone support have similar outcomes when used as maintenance programs in adults with chronic health conditions: a randomised trial.

Author(s): Jansons, Paul; Robins, Lauren; O'brien, Lisa; Haines, Terry

Source: Journal of Physiotherapy (Elsevier); Jul 2017; vol. 63 (no. 3); p. 154-160

Abstract: Question What is the effectiveness of gym-based exercise versus home-based exercise with telephone follow-up amongst adults with chronic conditions who have completed a short-term exercise program supervised by a health professional? Design A randomised, controlled trial with concealed allocation, intention-to-treat analysis, and blinded outcome assessment at baseline and 3, 6, 9 and 12 months. Participants The participants were recruited following a 6-week exercise program at a community health service. Intervention One group of participants received a gym-based exercise program for 12 months (gym group). The other group received a home-based exercise program for 12 months with telephone follow-up for the first 10 weeks (home group). Outcome measures Outcome measures included European Quality of Life Instrument (EQ-5D), the Friendship Scale, the Hospital and Anxiety and Depression Scale, Phone-FITT, 6-minute walk test, body mass index and 15-second sit-to-stand test. Results There was no significant difference between study groups in the primary outcome (EQ-5D visual analogue scale, 0 to 100) across the 12-month intervention period, with an estimate (adjusted regression coefficient) of the difference in effects of 0 (95% CI −5 to 4). The gym group demonstrated slightly fewer symptoms of depression over the 12-month period compared to the home group (mean difference 0.8 points on a 21-point scale, 95% CI 0.1 to 1.6). Conclusion Similar long-term clinical outcomes and long-term exercise adherence are achieved with the two approaches examined in this study. Participation in gym-based group exercise may improve mental health outcomes slightly more, although the mechanisms for this are unclear because there was no change in the selected measure of social isolation or other measures of health and wellbeing. This finding may also be a Type 1 error. Further research to reproduce these results and that investigates the economic efficiency of these models of care is indicated. Trial registration ACTRN12610001035011.

Database: CINAHL

An app with remote support achieves better adherence to home exercise programs than paper handouts in people with musculoskeletal conditions: a randomised trial.

Author(s): Lambert, Tara E; Harvey, Lisa A; Avdalis, Christos; Chen, Lydia W; Jeyalingam, Sayanthinie; Pratt, Carin A; Tatum, Holly J; Bowden, Jocelyn L; Lucas, Barbara R

Source: Journal of Physiotherapy (Elsevier); Jul 2017; vol. 63 (no. 3); p. 161-167

Abstract: Question Do people with musculoskeletal conditions better adhere to their home exercise programs when these are provided to them on an app with remote support compared to paper handouts? Design Randomised, parallel-group trial with intention-to-treat analysis. Participants Eighty participants with upper or lower limb musculoskeletal conditions were recruited to the trial. Each participant was prescribed a 4-week home exercise program by a physiotherapist at a tertiary teaching hospital in Australia. Participants were randomly assigned via a computer-generated concealed block randomisation procedure to either intervention (n = 40) or control (n = 40) groups. Intervention Participants in the intervention group received their home exercise programs on an app linked to the freely available website www.physiotherapyexercises.com. They also received supplementary phone calls and motivational text messages. Participants in the control group received their home exercise programs as a paper handout. Outcome measures Blinded assessors collected outcome measures at baseline and 4 weeks. The primary outcome was self-reported exercise adherence. There were five secondary outcomes, which captured functional performance, disability, patient satisfaction, perceptions of treatment effectiveness, and different aspects of adherence. Results Outcomes were available on 77 participants. The mean between-group difference for self-reported exercise adherence at 4 weeks was 1.3/11 points (95% CI 0.2 to 2.3), favouring the intervention group. The mean between-group difference for function was 0.9/11 points (95% CI 0.1 to 1.7) on the Patient-Specific Functional Scale, also favouring the intervention group. There were no significant between-group differences for the remaining outcomes. Conclusion People with musculoskeletal conditions adhere better to their home exercise programs when the programs are provided on an app with remote support compared to paper handouts; however, the clinical importance of this added adherence is unclear. Trial registration ACTRN1261600006482.

Database: CINAHL

Limited interface between physiotherapy primary care and people with severe mental illness: a qualitative study.
The Gross Motor Function Measure (GMFM).

Author(s): Harvey, Adrienne R

Source: Journal of Physiotherapy (Elsevier); Jul 2017; vol. 63 (no. 3); p. 187-187

Abstract: The article focuses on the impact of using the tool Gross Motor Function Measure (GMFM) to detect the motor functions in the children suffering from cerebral palsy and mentions the result of the clinical trial conducted on patients, use of computer software with the tool, and its effectiveness.
There’s an app for that! iOrtho+ Special Tests and Manual Techniques is a useful resource for students and recently graduated physiotherapists.

Author(s): Foulcher, Tim

Source: Journal of Physiotherapy (Elsevier); Jul 2017; vol. 63 (no. 3); p. 191-191

Abstract: The article evaluates a smartphone app for special tests and manual techniques, designed for use in Apple and Android devices.

Physiotherapy for Patients with Sciatica Awaiting Lumbar Micro-discetomy Surgery: A Nested, Qualitative Study of Patients' Views and Experiences.

Author(s): Boote, Jonathan; Newsome, Ruth; Reddington, Michael; Cole, Ashley; Dimairo, Munyaradzi

Source: Physiotherapy Research International; Jul 2017; vol. 22 (no. 3)

Abstract: Background and Purpose Sciatica is a common clinical condition that can be extremely painful, disabling and life-changing. Whether conservative or surgical treatment for sciatica secondary to an intervertebral disc prolapse is most effective is still much debated. An important component of conservative treatment is physiotherapy, which aims to promote physical and psychological health for the patient, whilst resorption of the disc takes place. This paper reports a qualitative study of patients' views and experiences of a bespoke physiotherapy intervention for the treatment of sciatica. Methods A qualitative study nested within a pilot randomized controlled trial of bespoke physiotherapy for the treatment of patients with sciatica awaiting lumbar microdiscectomy surgery. Patients randomized to receive bespoke physiotherapy in the intervention arm of the trial were invited to take part in semi-structured interviews. Twenty-one in-depth, semi-structured interviews took place. All interviews were recorded, fully transcribed and thematically analysed. Results Most patients in the sample found the physiotherapy valuable, appreciating the individual nature of the approach, the exercises to reduce pain and discomfort, techniques for improving functional spinal movement, walking and dynamic posture, and manual therapy and cardiovascular exercise. A small number did not find the physiotherapy of benefit. Sixteen patients in the sample went on to proceed with surgery, but most of these found value in having had the physiotherapy first. Discussion Many patients with sciatica appreciate the value of physiotherapy prior to surgery. Future research should examine patients' experiences of bespoke physiotherapy delivered within primary care.

Occupational Therapy


Author(s): Pfeiffer, Beth; Coster, Wendy; Snethen, Gretchen; Derstine, Maggie; Piller, Aimee; Tucker, Carole

Source: American Journal of Occupational Therapy; Jul 2017; vol. 71 (no. 4); p. 1-9

Available in full text at American Journal of Occupational Therapy - from EBSCOhost

Abstract: The purpose of this phenomenological study was to obtain caregivers' perspectives on the impact of the sensory environment on participation in daily activities of their young children with autism spectrum disorders (ASD). Interviews were completed with 34 caregivers of children with ASD ages 3-7 yr. Results strongly suggest that parents and caregivers were pivotal in enabling participation for their children through the implementation of specific strategies and a parental decision-making process. The decision-making process considered amount of effort necessary to support participation and whether participation in a given activity was perceived as essential or nonessential. Strategies enabled participation and reduced the effort required to support the child's participation. Strategies either directly related to the sensory factors of the environment or focused on reducing behavioral responses associated with sensory factors. In this study, we identified important considerations to enhance participation in the home and community environments for children with ASD.

In-Home Medication Management Performance Evaluation (HOME-Rx): A Validity Study.

Author(s): Murphy, Mary Catherine; Somerville, Emily; Keglovits, Marian; Yi-Ling Hu; Stark, Susan

Database: CINAHL
Lifestyle Redesign® for Chronic Pain Management: A Retrospective Clinical Efficacy Study.

Author(s): Simon, Ashley Uyeshiro; Collins, Chantelle E. R.

Available in full text at American Journal of Occupational Therapy - from EBSCOhost

Abstract: OBJECTIVE. Our objective was to determine the efficacy of a Lifestyle Redesign® intervention for people living with chronic pain on quality of life (QOL), function, self-efficacy, and pain levels. METHOD. Clinical outcomes were collected from 45 patients who completed an individual outpatient Lifestyle Redesign occupational therapy program for chronic pain as part of their usual plan of medical care. Outcome measures included the Canadian Occupational Performance Measure, the 36-Item Short-Form Survey, the Brief Pain Inventory, and the Pain Self-Efficacy Questionnaire. We analyzed scores using paired-samples t tests. RESULTS. Significant changes were observed in occupational performance and satisfaction scores, physical and social functioning, role limitations due to physical and emotional problems, energy and fatigue, general health, and pain self-efficacy. CONCLUSION. Lifestyle Redesign interventions, when integrated into a patient's medical plan of care, can improve patient functioning, self-efficacy, and QOL.

Database: CINAHL

Effectiveness of cognition-focused interventions in activities of daily living performance in people with dementia: A systematic review.

Author(s): Garrido-Pedrosa, Jèssica; Sala, Isabel; Obradors, Núria

Available in full text at British Journal of Occupational Therapy - from EBSCOhost

Abstract: Introduction Dementia affects cognitive functions and has a direct impact on the ability to perform activities of daily living. Studies have focused on the impact of cognition-focused interventions on cognitive functions, but less on the daily functionality of people with dementia. The aim of this study was to review systematically evidence of the effectiveness of cognition-focused interventions on the ability of people with dementia to perform activities of daily living. Method A search of randomised controlled trials was performed in 10 databases to find all available evidence on the subject. Two reviewers independently selected articles based on predetermined inclusion criteria. The articles had to describe randomised controlled trials involving cognition-focused interventions in people with some form of dementia, aged 65 years or over, and specify their score on the Mini-Mental State Examination or the Clinical Dementia Rating. Eleven articles met the inclusion criteria for the review. Results Cognitive rehabilitation through functional tasks led to maintenance or improvement in everyday tasks in some cases. In cognitive stimulation studies the subjects maintained their performance in activities of daily living with respect to the control condition, but this was not the case in reminiscence stimulation groups. Subjects who underwent cognitive training of cognitive functions did not show significant improvements in activities of daily living. Conclusion The evidence on the effectiveness of cognition-focused interventions suggests that multi-component programmes that include cognitive rehabilitation or cognitive stimulation could maintain or improve functionality in people with dementia.

Database: CINAHL

Experiences of people with a personality disorder or mood disorder regarding carrying out daily activities following discharge from hospital.

Author(s): Birken, Mary; Harper, Shelley
Abstract: Introduction People with a diagnosed personality or mood disorder can experience challenges to participating in everyday life. Having a relapse of symptoms and an admission to hospital can further disrupt daily life. The aim of this study is to explore the experiences of people with a personality or mood disorder regarding carrying out everyday activities following discharge from hospital. Method Semi-structured interviews were carried out with 16 service users, by a researcher with lived experience of mental health problems and admissions to hospital. Findings Five themes were identified: The cumulative effect of multiple admissions on activities of daily living; the consequences of long admissions on daily living; reduced activities caused by social isolation in the first few months post-discharge; activities that people would like to do better post-discharge from hospital and longer term goals. Conclusion The findings of this study identified challenges people with a personality or mood disorder experience post-discharge from hospital regarding developing a daily routine, managing their home environment and participating in social activities. This indicates the importance of occupational therapy provision following discharge from hospital.

Database: CINAHL

Long-term improvement in activities of daily living in women with systemic sclerosis attending occupational therapy.

Author(s): Zanatta, Elisabetta; Rodeghiero, Francesca; Pigatto, Erika; Galozzi, Paola; Polito, Pamela; Favaro, Maria; Punzi, Leonardo; Cozzi, Franco

Abstract: Introduction Systemic sclerosis often affects hand function, leading to severe disability in many subjects. There is little data available on the effects of occupational therapy in systemic sclerosis in current literature. The aim of our study was therefore to evaluate the effects of a cycle of occupational therapy on performing activities of daily living in a group of women with systemic sclerosis. Method Twenty women with systemic sclerosis were included in the study: 10 followed a cycle of occupational therapy; 10 were enrolled as controls. An occupational therapy cycle consisted of six meetings of 90 minutes each over a 3-week period. All women were evaluated by the Health Assessment Questionnaire and Evaluation of Daily Activity Questionnaire at baseline and after 24 weeks. The use of devices and alternative strategies was also assessed. Results We observed a significant reduction in the Health Assessment Questionnaire and Evaluation of Daily Activity Questionnaire scores in occupational therapy subjects after 6 months compared to controls. There was also evidence of significant improvement in four dimensions of the Evaluation of Daily Activity Questionnaire: eating; indoor mobility; outdoor mobility; and communication. The number of devices in the occupational therapy group increased significantly. Conclusion Our findings suggest a relevant role for occupational therapy in improving activities of daily living in women with systemic sclerosis. The use of strategies learned during occupational therapy sessions allows for long-lasting beneficial effects.

Database: CINAHL

Learning from the margins: Enabling effective occupational therapy.

Author(s): Creek, Jennifer; Cook, Sarah

Abstract: Introduction This study investigated the practice of occupational therapy in marginal settings to see if it could offer anything to take forward the development of occupational therapy theory and practice. Method The study began with the assumption that occupational therapy consists of an idea and a practice, both embedded in particular times, places and contexts. An interpretive methodology was selected to explore how the idea and practice develop as practitioners try to make sense of their practice. A multiple case study design was employed, using qualitative interview methods to explore the perceptions of practitioners working in marginal settings. The research design was not fully specified from the beginning, but emerged during the course of the study. Findings The practice of occupational therapists working on the margins differed from that in the mainstream in several features, but the differences tended to be of degree. Practitioners shared five characteristics which enabled them to practise effectively in resource-poor conditions: agency; openness; commitment; responsiveness; and resourcefulness. Conclusion Developing these enabling characteristics in occupational therapy students and practitioners has the potential to make them better able to make an effective contribution to meeting complex health and social care needs in developed and developing countries.

Database: CINAHL
The development of a workbook to explore meaningful occupations after life-changing events.

**Author(s):** Taylor, Jackie; Jones, Vivienne

**Source:** British Journal of Occupational Therapy; Jul 2017; vol. 80 (no. 7); p. 440-447

**Abstract:** Introduction Following serious illness or other traumatic events, individuals can experience a disruption of identity. This is related to an altered ability to engage in the routines, interactions and occupations of everyday life. The meaningfulness of occupations and of life itself can be changed or diminished. Because engagement in occupations contributes to identity construction, a practical tool to systematically explore the unique meanings of particular occupations to an individual could be of value in helping to re-establish a positive way forward. The aim of this study was to develop such a therapeutic tool, based on a framework of ‘the occupied self’. Method A participatory design approach was employed to engage the expertise of potential end-users of the tool: six occupational therapists in cancer services and nine people living with cancer. The prototype ‘What Now?’ Workbook and associated Guidance Notes were incrementally developed over a period of 8 months. Results The workbook was judged by the expert advisers to be relevant, useful and user-friendly, with the potential to benefit carers, retirees and those recovering from life-changing events. Conclusion The final version of the ‘What Now?’ Workbook is now ready to be tested in practice.

**Database:** CINAHL

43. Music therapy and spirituality: an international survey of music therapists’ perceptions.

**Author(s):** Tsiris, Giorgos

**Source:** Nordic Journal of Music Therapy; Jul 2017; vol. 26 (no. 4); p. 293-319

**Abstract:** Despite various theoretical explorations regarding spirituality and music therapy, only a small number of empirical studies have been conducted in this area to date. This study aims to explore and provide a systematic overview of music therapists’ reported perceptions of spirituality and its relevance (or irrelevance) to their music therapy practice. A pragmatic methodological stance informs this study. Data were collected through an online survey questionnaire which was open to qualified and trainee music therapists across the world. Descriptive statistics and thematic analysis were used to analyse the data. A total of 358 music therapists from 29 countries took part in this study. The survey findings provide an insight into music therapists’ perceptions of spirituality including its place in their training, practice and professional life. Also, dilemmas that music therapists face, as well as their suggestions for future action regarding spirituality and music therapy, are explored. To date, this study is one of the largest international music therapy studies on spirituality. Its findings contribute to the growing evidence regarding a subject area that is considered as controversial by many professionals not only in music therapy, but also in other health-related professions.

**Database:** CINAHL

44. Occupational therapy for adults with problems in activities of daily living after stroke.

**Author(s):** Legg, Lynn A; Lewis, Sharon R; Schofield-Robinson, Oliver J; Drummond, Avril; Langhorne, Peter

**Source:** The Cochrane database of systematic reviews; Jul 2017; vol. 7 ; p. CD003585

Available in full text at Cochrane Library, The - from John Wiley and Sons

**Abstract:** BACKGROUND A stroke occurs when the blood supply to part of the brain is cut off. Activities of daily living (ADL) are daily home-based activities that people carry out to maintain health and well-being. ADLs include the ability to: eat and drink unassisted, move, go to the toilet, carry out personal hygiene tasks, dress unassisted, and groom. Stroke causes impairment-related functional limitations that may result in difficulties participating in ADLs independent of supervision, direction, or physical assistance. For adults with stroke, the goal of occupational therapy is to improve their ability to carry out activities of daily living. Strategies used by occupational therapists include assessment, treatment, adaptive techniques, assistive technology, and environmental adaptations. This is an update of the Cochrane review first published in 2006.OBJECTIVESTo assess the effects of occupational therapy interventions on the functional ability of adults with stroke in the domain of activities of daily living, compared with no intervention or standard care/practice. SEARCH METHODS For this update, we searched the Cochrane Stroke Group Trials Register (last searched 30 January 2017), the Cochrane Controlled Trials Register (The Cochrane Library, January 2017), MEDLINE (1946 to 5 January 2017), Embase (1974 to 5 January 2017), CINAHL (1937 to January 2017), PsycINFO (1806 to 2 November 2016), AMED (1985 to 1 November 2016), and Web of Science (1900 to 6 January 2017). We also searched grey literature and clinical trials registers. SELECTION CRITERIA We identified randomised controlled trials of an occupational therapy intervention...
(compared with no intervention or standard care/practice) where people with stroke practiced activities of daily living, or where performance in activities of daily living was the focus of the occupational therapy intervention. DATA COLLECTION AND ANALYSIS Two review authors independently selected trials, assessed risk of bias, and extracted data for prespecified outcomes. The primary outcomes were the proportion of participants who had deteriorated or were dependent in personal activities of daily living and performance in activities of daily living at the end of follow-up. MAIN RESULTS We included nine studies with 994 participants in this update. Occupational therapy targeted towards activities of daily living after stroke increased performance scores (standardised mean difference (SMD) 0.17, 95% confidence interval (CI) 0.03 to 0.31; P = 0.02; 7 studies; 749 participants; low-quality evidence) and reduced the risk of poor outcome (death, deterioration or dependency in personal activities of daily living) (odds ratio (OR) 0.71, 95% CI 0.52 to 0.96; P = 0.03; 5 studies; 771 participants; low-quality evidence). We also found that those who received occupational therapy were more independent in extended activities of daily living (OR 0.22 (95% CI 0.07 to 0.37); P = 0.005; 5 studies; 665 participants; low-quality evidence). Occupational therapy did not influence mortality (OR: 1.02 (95% CI 0.65 to 1.61); P = 0.93; 8 studies; 950 participants), or reduce the combined odds of death and institutionalisation (OR 0.89 (95% CI 0.60 to 1.32); P = 0.55; 4 studies; 671 participants), or death and dependency (OR 0.89 (95% CI 0.64 to 1.23); P = 0.47; 4 trials; 659 participants). Occupational therapy did not improve mood or distress scores (OR 0.08 (95% CI 0.07 to 0.37); P = 0.005; 5 studies; 665 participants; low-quality evidence). We also found that those who received occupational therapy were more independent in extended activities of daily living (OR 0.22 (95% CI 0.07 to 0.37); P = 0.005; 5 studies; 665 participants; low-quality evidence). Occupational therapy did not influence mortality (OR: 1.02 (95% CI 0.65 to 1.61); P = 0.93; 8 studies; 950 participants), or reduce the combined odds of death and institutionalisation (OR 0.89 (95% CI 0.60 to 1.32); P = 0.55; 4 studies; 671 participants), or death and dependency (OR 0.89 (95% CI 0.64 to 1.23); P = 0.47; 4 trials; 659 participants). Occupational therapy did not improve mood or distress scores (OR 0.08 (95% CI 0.07 to 0.37); P = 0.005; 5 studies; 665 participants; low-quality evidence). There were insufficient data to determine the effects of occupational therapy on health-related quality of life. We found no studies of consenting carers prior to study participation and therefore there were no carer-related outcomes in our review. There were insufficient data to determine participants' and carers' satisfaction with services. Using GRADE, the quality of evidence was low. The major limitation was the number of studies at unclear risk of selection bias and an inevitable high risk of performance and detection bias, as both participants and occupational therapists could not be blinded to the intervention. In addition, there was a sparseness of data for our outcomes of interest and we downgraded the quality of our evidence for these reasons.

AUTHORS' CONCLUSIONS

We found low-quality evidence that occupational therapy targeted towards activities of daily living after stroke can improve performance in activities of daily living and reduce the risk of deterioration in these abilities. Because the included studies had methodological flaws, this research does not provide a reliable indication of the likely effect of occupational therapy for adults with stroke.

Database: Medline

Continuing competence assessment and maintenance in occupational therapy: Scoping review with stakeholder consultation.

Author(s): Myers, Christine T; Schaefer, Nancy; Coudron, Ashley

Source: Australian occupational therapy journal; Jul 2017

Abstract: BACKGROUND/AIM Continuing competence activities hold the promise of improving health-care service quality, especially given concerns about system inefficiencies and fragmentation. The aim of this scoping review was to describe the assessment and maintenance of occupational therapists' continuing competence and identify knowledge gaps for future research. A secondary aim was comparing scoping review findings with those from other health-care fields and considering possible impact of varying international regulations. METHODS A series of database searches retrieved peer-reviewed and grey literature on assessment and maintenance of occupational therapy continuing competence from 1995 to 2015. Themes were developed and findings shared with stakeholders, whose comments drove a second phase: searching for reviews related to continuing competence from allied health, medicine, and nursing, and reviewing websites and documents concerning regulatory requirements for occupational therapy continuing competence in seven English-speaking nations. RESULTS Twenty-seven sources from the scoping review search met inclusion criteria. Stakeholder consultation validated the themes and preliminary knowledge gaps. Research into other health-care specialties corresponded to findings from the scoping review. The website/document review of occupational therapy regulatory requirements revealed wide variation on both the state/province and national levels. CONCLUSIONS This scoping review highlights gaps in research on effective methods and assessment of occupational therapy continuing competence. Findings suggest a need for research on approaches to continuing competence that incorporate the translation of evidence to practice and address the influence of external factors. Regulatory agencies may address the quality of occupational therapy services by incorporating a variety of professional development options into requirements.

Database: Medline

Occupational Therapy in the Intensive Care Unit: A Systematic Review.
Abstract: This paper is a synthesis of the available literature on occupational therapy interventions performed in the adult intensive care unit (ICU). The databases of Ovid MEDLINE, Embase, the Cochrane Library, ClinicalTrials.gov and CINAHL databases were systematically searched from inception through August 2016 for studies of adults who received occupational therapy interventions in the ICU. Of 1,938 citations reviewed, 10 studies met inclusion criteria. Only one study explicitly discussed occupational therapy interventions performed and only one study specifically tested the efficacy of occupational therapy. Future research is needed to clarify the specific interventions and role of occupational therapy in the ICU and the efficacy of these interventions.

Database: Medline

Integration of Medication Management Into Occupational Therapy Practice.

Abstract: Occupational therapy practitioners enable clients to improve performance in everyday occupations. As health care reform precipitates changes across health care service organizations, occupational therapy professionals must seize the opportunity to apply their unique skills and perspective to meet the changing needs of clients and other stakeholders. In this article, we explore the role and distinct value of occupational therapy practitioners in one area of changing need: medication management. We find that occupational therapy practitioners have unique skills that complement the factors affecting medication nonadherence and evidence-based interventions. With reforms to research, teaching, and practice, occupational therapy practitioners can better integrate medication management into regular evaluation and treatment, thereby contributing to broader patient outcomes defined by the Affordable Care Act.

Database: Medline

A Way of Seeing: How Occupation Is Portrayed to Students When Taught as a Concept Beyond Its Use in Therapy.

Abstract: The concept of occupation is core to learning occupational therapy, yet how occupation is taught has not been widely studied. We explored how occupation is addressed in 25 U.S. occupational therapist and occupational therapy assistant programs. METHOD We used a basic qualitative research design, collecting data through interviews, artifacts, and video recordings of teaching. We secondarily analyzed 8 programs in which occupation was taught beyond its application in practice. RESULTS Educators portrayed occupation as (1) a way of seeing self (students learn about themselves as occupational beings), (2) a way of seeing others (students learn about others as occupational beings), and (3) a way of seeing the profession (students learn occupation as the central focus of occupational therapy). Varied learning experiences promoted these perspectives. CONCLUSION Three concepts—subject-centered learning, threshold concepts, and transformative learning—formed the theoretical foundation for teaching occupation as a way of seeing.

Database: Medline

Promoting Health, Well-Being, and Quality of Life in Occupational Therapy: A Commitment to a Paradigm Shift for the Next 100 Years.

Abstract: Since the inception of the profession of occupational therapy a century ago, a clarion call to link health with occupation and occupational engagement has been heard. For decades, leaders in the profession have emphasized the need for prevention and health promotion as well as for development of assessments and models linking health with occupation. This article addresses the need for an increased
presence of occupational therapy in health and wellness, emphasizing participation over performance, to optimize the health, well-being, and quality of life of individuals, communities, and populations.

**Database:** Medline

**Expanding the Implementation of the Americans With Disabilities Act for Populations With Intellectual and Developmental Disabilities: The Role of Organization-Level Occupational Therapy Consultation.**

**Author(s):** Umeda, Caroline J; Fogelberg, Donald J; Jirikowic, Tracy; Pitonyak, Jennifer S; Mroz, Tracy M; Ideishi, Roger I

**Source:** The American journal of occupational therapy : official publication of the American Occupational Therapy Association; ; vol. 71 (no. 4); p. 7104090010p1

Available in full text at American Journal of Occupational Therapy - from EBSCOhost

**Abstract:** The Americans With Disabilities Act (ADA) provides standards and guidance for accessibility and accommodations that remove barriers to facilitate community social participation for individuals with disabilities. However, ADA implementation does not yet fully address the diverse access needs of people with intellectual and developmental disabilities (IDD), who continue to face barriers to community social participation. This article explores the potential for occupational therapy practitioners to provide organization-level consultation as a means of maximizing community social participation among people with IDD. Case examples of occupational therapy practitioners working with community organizations are presented to illustrate organization-level consultation that addresses access needs across diverse community contexts. The relevance of supporting community social participation within the context of health equity is discussed, and key next steps, including developing population-based outcome measures, addressing reimbursement considerations, and developing best practices for organization-level consultation, are outlined.

**Database:** Medline

**Approaches to learning among occupational therapy undergraduate students: A cross-cultural study.**

**Author(s):** Brown, Ted; Fong, Kenneth N K; Bonsaksen, Tore; Lan, Tan Hwei; Murdolo, Yuki; Gonzalez, Pablo Cruz; Beng, Lim Hua

**Source:** Scandinavian journal of occupational therapy; Jul 2017; vol. 24 (no. 4); p. 299-310

**Abstract:** BACKGROUND Students may adopt various approaches to academic learning. Occupational therapy students’ approaches to study and the impact of cultural context have not been formally investigated to date. AIM To examine the approaches to study adopted by undergraduate occupational therapy students from four different cultural settings. METHOD 712 undergraduate occupational therapy students (n = 376 from Australia, n = 109 from Hong Kong, n = 160 from Norway and n = 67 from Singapore) completed the Approaches and Study Skills Inventory for Students (ASSIST). A one-way analysis of variance (ANOVA) was conducted to compare the ASSIST subscales for the students from the four countries. RESULTS Post-hoc comparisons using the Tukey HSD test indicated that the mean scores for the strategic approach were significantly different between Australia and the other three countries. The mean scores for the surface approach were significantly different between Australia and Hong Kong, and Hong Kong and Norway. There were no significant differences between the deep approach to studying between Australia, Norway, Singapore and Hong Kong. CONCLUSION & IMPLICATIONS Culture and educational context do appear to impact the approaches to study adopted by undergraduate occupational therapy students. Academic and practice educators need to be cognizant of what approaches to studying the students they work with adopt.

**Database:** Medline

**What are the short-term and long-term effects of occupation-focused and occupation-based occupational therapy in the home on older adults’ occupational performance? A systematic review.**

**Author(s):** Nielsen, Tove Lise; Petersen, Kirsten Schultz; Nielsen, Claus Vinther; Strøm, Janni; Ehlers, Monica Milters; Bjerrum, Merete

**Source:** Scandinavian journal of occupational therapy; Jul 2017; vol. 24 (no. 4); p. 235-248

**Abstract:** BACKGROUND There is a lack of evidence-based knowledge about the effectiveness of home-based OT for older adults aimed at improving occupational performance by practicing activities and tasks. AIM This review synthesizes and discusses evidence for the effectiveness of occupation-focused and occupation-based OT for older adults at home. MATERIAL AND METHODS Peer-reviewed quantitative
papers were included. PARTICIPANTS ≥60-year-old adults with functional limitations. INTERVENTION OT aiming at improving occupational performance, primarily through the practice of activities and tasks. OUTCOME Occupational performance. CONTEXT Home. Three reviewers critically appraised 13 of 995 detected papers. Extracted data were presented and summarized descriptively. RESULTS Eight high-quality papers showed that occupation-focused and occupation-based OT using cognitive, behavioral and environmental strategies may significantly improve occupational performance in older, home-dwelling adults with physical health problems. Maintaining achieved improvements was a consistent challenge. CONCLUSIONS AND SIGNIFICANCE Evidence suggests that older adults’ occupational performance can be significantly improved through low-intensity occupation-focused and occupation-based intervention. It is recommended to develop and test high-intensity OT programs and maintenance programs.

**African American Fathers’ Occupational Participation: "Keeping the Mothers in a Positive Vibe".**

**Author(s):** Pizur-Barnekow, Kris; Pate, David; Lazar, Katie; Paul, Nelly; Pritchard, Kathleen; Morris, George

**Source:** OTJR : occupation, participation and health; Jul 2017 ; p. 1539449217714236

**Abstract:** Infant mortality is a major public health issue in the United States that disproportionately affects African Americans. Evidence suggests reducing stress on African American women and engaging African American fathers may improve health and social outcomes for families. This study sought to understand the experiences of African American fathers through a positivist lens and to inform future interventions that support father engagement. A descriptive, qualitative study using the Person, Environment, Occupation-Performance (PEO-P) model as a framework for analysis was conducted involving 45 fathers participating in four focus groups and one member-checking group. An initial content analysis was followed by constant comparative methods to identify categories related to the PEO-P model. Transcripts revealed a range of factors that enable or inhibit fathers’ occupational performance and engagement including environmental barriers such as societal expectations and perceptions. Occupational therapy practitioners may utilize population health approaches to support African American fathers’ occupational engagement.

**Database:** Medline

**Health Care Access for Adults With Intellectual and Developmental Disabilities: A Scoping Review.**

**Author(s):** Williamson, Heather J; Contreras, Graciela M; Rodriguez, Erica S; Smith, Jennifer M; Perkins, Elizabeth A

**Source:** OTJR : occupation, participation and health; Jul 2017 ; p. 1539449217714148

**Abstract:** Adults with intellectual and/or developmental disabilities (IDD) often experience health disparities. To address disparities, Healthy People 2020 includes specific disability and health goals focused on improving health care access. The study's purpose was to review the literature exploring health care access for adults with IDD to identify opportunities for occupational therapy research and practice. A scoping review was completed of articles discussing health care access among adults with IDD in the United States. Thirty-seven articles met the inclusion criteria. Results are framed using the ecology of human performance theory identifying person and environmental issues affecting health care access of adults with IDD. Opportunities exist for occupational therapy to improve participation and health of adults with IDD through engaging in research and practice efforts addressing health care access. Occupational therapy could develop interventions to establish skills and abilities and recommend changes to the health care environment.

**Database:** Medline

**Occupational Therapists With Oncology Exposure: Perceived Needs on Adults and Older Adults With Cancer-Related Cognitive Impairments.**

**Author(s):** Ulfers, Sara S; Berg, Christine

**Source:** OTJR : occupation, participation and health; Jul 2017; vol. 37 (no. 3); p. 149-154

**Abstract:** Cancer-related cognitive impairments (CRCI) can limit participation in meaningful activities before, during, and after cancer treatment. This study explored occupational therapists’ perceived knowledge gaps and needs regarding CRCI in adults and older adults. An online survey was sent to a convenience sample of 60 practitioners at facilities throughout the continuum of care and 176 directors and faculty in accredited occupational therapy programs. Using a snowball sampling approach, recipients were asked to forward the survey to other occupational therapists. One hundred seven occupational therapists
The majority (92%) responded that it would be beneficial to attend a face-to-face continuing education program; preferences for the content and design of a continuing competency seminar are described. These findings support the development and delivery of continuing competence programs tailored toward occupational therapists’ CRCI knowledge needs.

Database: Medline

**Manualization of Occupational Therapy Using Ayres Sensory Integration® for Autism.**

**Author(s):** Hunt, Joanne; van Hooijdonk, Elke; Faller, Patricia; Mailloux, Zoe; Schaal, Roseann

**Source:** OTJR : occupation, participation and health; Jul 2017; vol. 37 (no. 3); p. 141-148

**Abstract:** This article reports on the development of a Stage 3 manual (following pilot effectiveness study) for implementing occupational therapy using Ayres Sensory Integration® (OT/ASI) for children with autism spectrum disorders to enhance participation in daily occupations. Three stakeholder groups were surveyed to aid in translation of manual from research to practice (i.e., Stage 3 manual) and an expert consensus meeting was held to finalize recommendations. Data indicated that the manuals usability could be improved by including a section on frequently encountered problems and solutions, and by including video case examples. Also recommended were greater chapter uniformity, improved clarity of forms and charts, and inclusion of a glossary. Changes were made and subject to expert review and consensus using modified Delphi process. The Stage 3 manual has been rigorously vetted and is ready for practice and research replication.

Database: Medline

**Occupational therapy interventions in the treatment of people with severe mental illness.**

**Author(s):** Höhl, Werner; Moll, Sandra; Pfeiffer, Andreas

**Source:** Current opinion in psychiatry; Jul 2017; vol. 30 (no. 4); p. 300-305

**Abstract:** PURPOSE OF REVIEW Life expectancy of people with severe mental illness is considerably shortened and their risk for cardiovascular and metabolic disorders is increased. They spend more time in solitary and less time in structured activities than the general population. Engagement in healthy patterns of activity, including active, meaningful participation in the community can, therefore, be critical to recovery from severe mental illness. Occupational therapy is a profession that focuses on time use, activity patterns and occupational engagement, and the links to health and well-being. In this study, we review research evidence regarding approaches to occupational engagement, including behavioural activation, time use, and activity promotion. We also will review studies that specifically evaluate the impact of occupational therapy interventions. RECENT FINDINGS There is a growing body of evidence regarding the value of interventions addressing occupational engagement of individuals with severe mental illness, including a range of activation strategies and approaches. There is a need, however, for documentation of theoretically informed approaches that are supported by fidelity measures to ensure standardization. SUMMARY Larger-scale studies are needed, including consistent outcome measures to document engagement and changes in activity patterns as well as health-related outcomes. High-quality randomized clinical trials are important to establish effectiveness. As occupational therapy interventions are complex and embedded within a range of multidisciplinary approaches, new models of pragmatic trials within the naturalistic context of psychiatric rehabilitation are also needed.

Database: Medline

**Advancements in measurement and methodology in Occupational Therapy: The contribution of Professor Sylvia Rodger.**

**Author(s):** Cordier, Reinie

**Source:** Australian occupational therapy journal; Jul 2017; vol. 64

Database: Medline

**Speech & Language Therapy**

**Opportunities and Shared Decision-Making to Help Children Who Are Deaf to Communicate.**

**Author(s):** White, Karl R.; Cooper, Louis Z.

**Source:** Pediatrics; Jul 2017; vol. 140 (no. 1); p. 1-2
Abstract: This article discusses findings of studies as to the role of sign language in helping children who are deaf or hard of hearing (DDH) communicate, referencing articles by Napoli et al, Fitzpatrick et al and Geers et al which appeared in the 2015, 2016 and 2017 issues of the journal “Pediatrics.” Topics covered include congenital hearing loss, advances in technology and practice which benefited children who are DDH, such as newborn screening and cochlear implants, and the American Sign Language.

Database: CINAHL

A systematic scoping review of speech and language therapists' public health practice for early language development.

Author(s): Smith, Clare; Williams, Emma; Bryan, Karen

Source: International Journal of Language & Communication Disorders; Jul 2017; vol. 52 (no. 4); p. 407-425

Abstract: Background There have been calls for speech and language therapists (SLTs) to work within a public-health framework to support language development. Innovative practice is reported, but the range of services remains unknown. Furthermore, the potential impact of public health practice in speech and language therapy on early child development is also currently unknown. A new method in SLT research, systematic scoping reviews enable greater breadth of focus than traditional systematic reviews when identifying innovative practice. Aim To report scope and critically appraise evidence of family-focused health-promotion practice for early language development in this area. Methods & Procedures Using the Cochrane Public Health Group scoping review framework, data from reports of health-promotion practice with families of children aged 0-3 years were extracted and critically appraised on service delivery, information, reach and evaluation. Main contribution Group-based service delivery was the most popular form of service delivery. There were limited reports on the information given in services and on their reach. Questionnaires were the most popular reported evaluation method. Quality of evaluations was poor due to lack of replicability and experimental control in the studies reported. Conclusions & Implications This method of systematic review has highlighted the scope of health-promotion practice in speech and language therapy and also demonstrated the lack of evidence for its effectiveness on child language development. It is argued that systematic scoping reviews are valuable for scoping innovative practice in areas where either there is a lack of robust evidence or there is a high level of heterogeneity in practice or evaluation. To support clinician appraisal of available evidence, recommendations are given for development of questionnaire appraisal and for categorization of evidence levels on summary databases.

Database: CINAHL

Ingressive speech errors: a service evaluation of speech-sound evaluation therapy in a child aged 4;6.

Author(s): Hrastelj, Laura; Knight, Rachael-Anne

Source: International Journal of Language & Communication Disorders; Jul 2017; vol. 52 (no. 4); p. 479-488

Abstract: Background A pattern of ingressive substitutions for word-final sibilants can be identified in a small number of cases in child speech disorder, with growing evidence suggesting it is a phonological difficulty, despite the unusual surface form. Phonological difficulty implies a problem with the cognitive process of organizing speech into sound contrasts. Aims To evaluate phonological therapy approaches in the remediation of non-pulmonic speech errors. Thus, adding to evidence concerning the nature of ingressive substitutions and their remediation whilst highlighting their occurrence within child speech disorder population for practising and training speech and language therapists. Methods & Procedures Child KO, a boy aged 4;6, was identified through a screening of speech, language and communication needs at his school. Word-final, non-pulmonic-egressive substitutes for fricatives and plosives were identified using the Diagnostic Evaluation of Articulation and Phonology (DEAP). Treatment took place in five, weekly school-based sessions with a care-giver present, and targeted two phonemes /l/ and /ʃ/ in word-final position. Word-final /s/ was monitored throughout to capture any change in other word-final fricatives. Phonemes /ɡ/ and /p/ were used as controls, as no change was expected in word-final plosives as a result of therapy targeting fricatives. Production of single words in the DEAP, pre- and post-therapy were transcribed by two independent therapists, (transcription agreement was 86.6% (pre) and 83.7% (post), with all 140 consonants within the DEAP transcribed), and change in consonants correct was analysed using a Wilcoxon test. Picture description tasks and telling of familiar stories were videoed post-therapy to analyse use of word-final fricative egression in connected speech. Outcome & Results Percentage consonants correct in single-words post-treatment was significantly higher than pre-treatment at single-word level. Generalization of target fricatives into connected speech and modest generalization of non-target phonemes occurred. Conclusions & Implications Although ingressive speech sounds are largely absent in the sound system of English, they do occur as speech-sound errors in child speech disorder and
respond to phonological therapy within the context of home and school environment. Therefore, training in the phonetic identification of speech sounds outside the system of English is essential. Additionally, non-lexical factors associated with ingestion also influence the child's intelligibility and should be explored further in future research.

**Database:** CINAHL

**Language development, delay and intervention-the views of parents from communities that speech and language therapy managers in England consider to be under-served.**

**Author(s):** Marshall, Julie; Harding, Sam; Roulstone, Sue

**Source:** International Journal of Language & Communication Disorders; Jul 2017; vol. 52 (no. 4); p. 489-500

**Abstract:** Background Evidence-based practice includes research evidence, clinical expertise and stakeholder perspectives. Stakeholder perspectives are important and include parental ethno-theories, which embrace views about many aspects of speech, language and communication, language development, and interventions. The Developmental Niche Framework provides a useful theory to understand parental beliefs. Ethnotheories, including those about language development, delay and interventions, may vary cross culturally and are less well understood in relation to families who may be considered 'under-served' or 'hard-to-reach' by speech and language therapy services. Who is considered to be under-served and the reasons why some families are under-served are complex. Aim To describe beliefs and reported practices, in relation to speech and language development, delay and intervention, of parents and carers from a small number of groups in England who were perceived to be under-served in relation to SLT services. Methods & Procedures As part of a wider National Institute for Health Research (NIHR)-funded study (Child Talk), seven focus groups (with a total of 52 participants) were held with parents from three communities in England. Topics addressed included beliefs about language development, language delay and parents' reported responses to language delay. Data were transcribed and analysed using adapted framework analysis, which also drew on directed content analysis. Outcomes & Results Four themes resulted that broadly matched the topics addressed in the focus groups: language development and the environment; causes and signs of speech and language delay; responses to concerns about speech, language and communication; and improving SLT. These produced some previously unreported ideas, e.g., about how language develops and the causes of delay. Conclusions & Implications The findings are discussed in relation to previous literature and the Developmental Niche Framework. Clinical implications include ideas about issues for SLTs to discuss with families and the need to recognize that parents may see themselves as competent facilitators of language. Suggestions are made for future research, including: expanded investigation of a wider range of under-served groups, an exploration of who parents consult when concerned about their child’s language, and how key community figures advise parents in relation to language delay.

**Database:** CINAHL

**28. Effectiveness of 1:1 speech and language therapy for older children with (developmental) language disorder.**

**Author(s):** Ebbels, Susan H.; Wright, Lisa; Brockbank, Sally; Godfrey, Caroline; Harris, Catherine; Leniston, Hannah; Neary, Kate; Nicoll, Hilary; Nicoll, Lucy; Scott, Jackie; Marić, Nataša

**Source:** International Journal of Language & Communication Disorders; Jul 2017; vol. 52 (no. 4); p. 528-539

**Abstract:** Background Evidence of the effectiveness of therapy for older children with (developmental) language disorder (DLD), and particularly those with receptive language impairments, is very limited. The few existing studies have focused on particular target areas, but none has looked at a whole area of a service. Aims To establish whether for students with (developmental) language disorder attending a specialist school, 1:1 intervention with an SLT during one school term improves performance on targeted areas, compared with untreated control areas. Also, to investigate whether gender, receptive language status, autism spectrum disorder (ASD) status, or educational Key Stage affected their response to this intervention. Methods & Procedures Seventy-two students (aged 9-17 years, 88% of whom had receptive language impairments) and all speech and language therapists (SLTs) in our specialist school for children with Language Disorder, most of whom have DLD participated in this study over one school term. During this term, the SLTs devised pre- and post-therapy measures for every student for each target they planned to treat 1:1. In addition, for each target area, a control measure was devised. The targets covered a wide range of speech, language and communication areas, both receptive and expressive. Post-therapy tests were administered 'blind'. Outcomes & Results During the term, SLTs and students worked 1:1 on 120 targets, the majority in the areas of expressive and receptive language. Targets and controls did not differ
pre-therapy. Significant progress was seen both on targets ($d = 1.33$) and controls ($d = 0.36$), but the targeted areas improved significantly more than the controls with a large and clinically significant effect size ($d = 1.06$). There was no effect of language area targeted (targets improved more than their controls for all areas). Participants with versus those without receptive language difficulties, co-occurring ASD diagnosis or participants in different educational Key Stages did not differ significantly in terms of the progress they made on target areas. Conclusions & Implications Direct 1:1 intervention with an SLT can be effective for all areas of language for older children with (D)LD, regardless of their gender, receptive language or ASD status, or age. This adds to the relatively limited evidence base regarding the effectiveness of direct SLT intervention for school-aged children with (D)LD and for children with receptive language impairments. If direct 1:1 intervention can be effective with this hard-to-treat group, it may well also be effective with younger children with (D)LD. Thus, direct SLT services should be available for school-aged children with (D)LD, including older children and adolescents with pervasive difficulties.

**Database: CINAHL**

**Speech Intelligibility and Psychosocial Functioning in Deaf Children and Teens with Cochlear Implants.**

**Author(s):** Freeman, Valerie; Pisoni, David B.; Kronenberger, William G.; Castellanos, Irina

**Source:** Journal of Deaf Studies & Deaf Education; Jul 2017; vol. 22 (no. 3); p. 278-289

**Abstract:** Deaf children with cochlear implants (CIs) are at risk for psychosocial adjustment problems, possibly due to delayed speech--language skills. This study investigated associations between a core component of spoken-language ability--speech intelligibility--and the psychosocial development of prelingually deaf CI users. Audio-transcription measures of speech intelligibility and parent reports of psychosocial behaviors were obtained for two age groups (preschool, school-age/teen). CI users in both age groups scored more poorly than typically hearing peers on speech intelligibility and several psychosocial scales. Among preschool CI users, five scales were correlated with speech intelligibility: functional communication, attention problems, atypicality, withdrawal, and adaptability. These scales and four additional scales were correlated with speech intelligibility among school-age/teen CI users: leadership, activities of daily living, anxiety, and depression. Results suggest that speech intelligibility may be an important contributing factor underlying several domains of psychosocial functioning in children and teens with CIs, particularly involving socialization, communication, and emotional adjustment.

**Database: CINAHL**

**Early Sentence Productions of 3- and 4-Year-Old Children Who Use Augmentative and Alternative Communication.**

**Author(s):** Binger, Cathy; Kent-Walsh, Jennifer; King, Marika; Mansfield, Lindsay

**Source:** Journal of Speech, Language & Hearing Research; Jul 2017; vol. 60 (no. 7); p. 1930-1945

Available in full text at Journal of Speech, Language & Hearing Research - from EBSCOhost

**Abstract:** Purpose: This study investigated the early rule-based sentence productions of 3- and 4-year-old children with severe speech disorders who used single-meaning graphic symbols to communicate. Method: Ten 3- and 4-year-olds requiring the use of augmentative and alternative communication, who had largely intact receptive language skills, received instruction in producing up to four different semantic-syntactic targets using an Apple iPad with a communication app. A single-case, multiple-probe, across-targets design was used to assess the progress of each participant and target. Generalization to new vocabulary was assessed, and a subgroup also was taught to produce sentences using grammatical markers. Results: Some targets (primarily possessor-entity) were mastered in the baseline phase, and the majority of the remaining targets were mastered during intervention. All four children who completed intervention for grammatical markers quickly learned to use the markers accurately. Conclusions: Expressive language potential for preschoolers using graphic symbol-based augmentative and alternative communication systems should not be underestimated. With appropriate presentation and intervention techniques, some preschoolers with profound speech disorders can readily learn to produce rule-based messages via graphic symbols.

**Database: CINAHL**

**Dynamic Assessment for 3- and 4-Year-Old Children Who Use Augmentative and Alternative Communication: Evaluating Expressive Syntax.**

**Author(s):** Binger, Cathy; Kent-Walsh, Jennifer; King, Marika

**Source:** Journal of Speech, Language & Hearing Research; Jul 2017; vol. 60 (no. 7); p. 1946-1958

Available in full text at Journal of Speech, Language & Hearing Research - from EBSCOhost
Abstract: Purpose: The developmental readiness to produce early sentences with an iPad communication application was assessed with ten 3- and 4-year-old children with severe speech disorders using graduated prompting dynamic assessment (DA) techniques. The participants' changes in performance within the DA sessions were evaluated, and DA performance was compared with performance during a subsequent intervention. Method: Descriptive statistics were used to examine the patterns of performance at various cueing levels and mean levels of cueing support. The Wilcoxon signed-ranks test was used to measure changes within the DA sessions. Correlational data were calculated to determine how well performance in DA predicted performance during a subsequent intervention. Results: Participants produced targets successfully in DA at various cueing levels, with some targets requiring less cueing than others. Performance improved significantly within the DA sessions - that is, the level of cueing required for accurate productions of the targets decreased during DA sessions. Last, moderate correlations existed between DA scores and performance during the intervention for 3 out of 4 targets, with statistically significant findings for 2 of 4 targets. Conclusion: DA offers promise for examining the developmental readiness of young children who use augmentative and alternative communication to produce early expressive language structures.

Database: CINAHL


Author(s): Sotoa, Gloria; Clarke, Michael T.

Source: Journal of Speech, Language & Hearing Research; Jul 2017; vol. 60 (no. 7); p. 1980-1998

Abstract: Purpose: This study was conducted to evaluate the effects of a conversation-based intervention on the expressive vocabulary and grammatical skills of children with severe motor speech disorders and expressive language delay who use augmentative and alternative communication. Method: Eight children aged from 8 to 13 years participated in the study. After a baseline period, a conversation-based intervention was provided for each participant, in which they were supported to learn and use linguistic structures essential for the formation of clauses and the grammaticalization of their utterances, such as pronouns, verbs, and bound morphemes, in the context of personally meaningful and scaffolded conversations with trained clinicians. The conversations were videotaped, transcribed, and analyzed using the Systematic Analysis of Language Transcripts (SALT; Miller & Chapman, 1991). Results: Results indicate that participants showed improvements in their use of spontaneous clauses, and a greater use of pronouns, verbs, and bound morphemes. These improvements were sustained and generalized to conversations with familiar partners. Conclusion: The results demonstrate the positive effects of the conversation-based intervention for improving the expressive vocabulary and grammatical skills of children with severe motor speech disorders and expressive language delay who use augmentative and alternative communication. Clinical and theoretical implications of conversation-based interventions are discussed and future research needs are identified.

Database: CINAHL

A systematic review of high quality randomized controlled trials investigating motor skill programmes for children with developmental coordination disorder.

Author(s): Preston, Nick; Magallón, Sara; Hill, Liam J. B.; Andrews, Elizabeth; Ahern, Sara M.; Mon-Williams, Mark

Source: Clinical Rehabilitation; Jul 2017; vol. 31 (no. 7); p. 857-870

Abstract: Objective: To identify effective motor training interventions for children with developmental coordination disorder from research graded as high quality (using objective criteria) for the purpose of informing evidence-based clinical practice. Data sources: We followed the guidance for conducting systematic reviews issued by the Centre for Reviews and Dissemination. Six OvidSP electronic databases (AMED, All EBM reviews (including Cochrane), Embase, Ovid MEDLINE, PsychARTICLES Full Text, PsycINFO) were searched systematically. We aimed to retain only randomized control trials and systematic reviews of randomized control trials, defined as the highest level of evidence by the Oxford Centre for Evidence-Based Medicine. We searched reference lists of retained articles to identify further appropriate articles. Review methods: Two reviewers critically appraised and categorized articles by effect size (including confidence intervals), inclusion of power calculations and quality using the Physiotherapy Evidence Database (PEDro) scale. Only studies scoring seven or more on the PEDro scale (classed by the PEDro as high reliability) were retained. Results: No systematic reviews met our criteria for inclusion from
846 articles yielded by the systematic search. Nine randomized control trials investigating 15 interventions to improve motor skills met our inclusion criteria for 'high quality'. Nevertheless, not all included studies were adequately powered for determining an effect. Conclusion: Large effect sizes associated with 95% confidence intervals suggest that 'Neuromotor Task Training', 'Task-oriented Motor Training' and 'Motor Imagery + Task Practice Training' are the most effective reported interventions for improving motor skills in children with developmental coordination disorder.

**Database:** CINAHL

**The effects of a home-based arm ergometry exercise programme on physical fitness, fatigue and activity in Polio survivors: a randomised controlled trial.**

**Author(s):** Murray, D.; Hardiman, O.; Campion, A.; Vance, R.; Horgan, F.; Meldrum, D.

**Source:** Clinical Rehabilitation; Jul 2017; vol. 31 (no. 7); p. 913-925

**Abstract:** Objective: To investigate the effect of an eight-week home-based arm ergometry aerobic exercise programme on physical fitness, fatigue, activity and quality of life in Polio Survivors. Design: An assessor blinded randomised controlled trial. Setting: Home-based exercise. Subjects: Fifty-five Polio survivors randomised to exercise or control groups. Intervention: Home-based arm ergometry at an intensity of 50%-70% maximum heart rate, compared with usual physiotherapy care. Main measures: The Six-minute Arm Test, Fatigue Severity Scale, Physical Activity Scale for Individuals with Physical Disabilities and SF-36. Assessments were completed at baseline and at eight weeks. Results: There was no significant difference in the primary outcome, exercising heart rate during the Six-minute Arm Test, between the groups at follow-up [97.6 (SD10.1) compared to 102.4 (SD13.7) beats per minute (P=0.20)]. Blood pressure was significantly lower in the intervention group at follow-up [systolic blood pressure 132(18.6)mmHg compared to 144.1(14.6)mmHg (P=0.002)]. There were no between group differences in the Fatigue Severity Scale (P=0.25) or Physical Activity Scale for Individuals with Physical Disabilities (P=0.49), with a small difference in SF-36 physical component score (P=0.04). Conclusions: This home-based arm ergometry programme successfully facilitated aerobic exercise in Polio Survivors, but did not result in a significant change in physical fitness, measured by the Six-minute Arm Test.

**Database:** CINAHL

**Medication, rehabilitation and health care consumption in adults with cerebral palsy: a population based study.**

**Author(s):** Pons, Christelle; Brochard, Sylvain; Gallien, Philippe; Nicolas, Benoit; Duruflé, Aurélie; Roquet, Marion; Rémy-Nériès, Olivier; Garlantezec, Ronan

**Source:** Clinical Rehabilitation; Jul 2017; vol. 31 (no. 7); p. 957-965

**Abstract:** Objective: To evaluate medication, rehabilitation and healthcare consumption in adults with CP as a function of Gross Motor Function Classification System (GMFCS) level. Design: Questionnaire-based cross-sectional study. Setting: Brittany, a French county. Subjects: Adults with cerebral palsy. Interventions: Questionnaires relating to drugs, orthotic devices, mobility aids, rehabilitation and medical input were sent to 435 members of a unique regional French network dedicated to adults with cerebral palsy. The questionnaire was completed by the participant or a helper if necessary. Results: Of the 282 responders, 7.8% had a GMFCS level of I, 14.2% II, 17.7% III, 29.1% IV and 31.2% V. Participants consumed a large amount of healthcare. Almost three-quarters took orally administered drugs, of which antispastic and antiepileptic drugs were among the most frequent. Nearly all patients had at least one type of rehabilitation, 87.2% had physiotherapy, 78% used at least one mobility aid and 31.2% V. Participants consumed a large amount of healthcare. Nearly three-quarters took orally administered drugs, of which antispastic and antiepileptic drugs were among the most frequent. Nearly all patients had at least one type of rehabilitation, 87.2% had physiotherapy, 78% used at least one mobility aid and 69.5% used at least one orthotic device. The frequency of numerous inputs increased with GMFCS level. Specificities were found for each GMFCS level, e.g. participants with GMFCS level IV and V had a high level of medical input and a greater use of trunk-supporting devices, antireflux and laxative. Profiles could be established based on GMFCS levels. Conclusions: Adults with cerebral palsy use a large amount of drugs, mobility aids, orthotic devices, rehabilitation and medical input. Healthcare is targeted at cerebral palsy-related issues. GMFCS is a determinant of healthcare consumption and thus a useful tool for clinical practice to target care appropriately.

**Database:** CINAHL

**An international survey of patients living with spasticity.**

**Author(s):** Barnes, Michael; Kocer, Serdar; Murie Fernandez, Manuel; Balcaitiene, Jovita; Fheodoroff, Klemens

**Source:** Disability & Rehabilitation; Jul 2017; vol. 39 (no. 14); p. 1428-1434
Abstract: Purpose: To better understand patient perspectives on the life impact of spasticity. Methods: Global Internet survey (April 2014–May 2015) of 281 people living with spasticity. Results: Respondents indicated that spasticity has a broad impact on their daily-life: 72% reported impact on quality of life, 44% reported loss of independence and 44% reported depression. Most respondents (64%) were cared for by family members, of whom half had stopped working or reduced their hours. Overall, 45% reported dissatisfaction with the information provided at diagnosis; main reasons were "not enough information" (67%) and "technical terminology" (36%). Respondents had high treatment expectations; 63% expected to be free of muscle spasm, 41% to take care of themselves and 36% to return to a normal routine. However, 33% of respondents had not discussed these expectations with their physician. The most common treatments were physiotherapy (75%), botulinum neurotoxin (BoNT, 73%) and oral spasmylytics (57%). Of those treated with BoNT, 47% waited >1 year from spasticity onset to treatment. Conclusions: This survey emphasises the broad impact of spasticity and highlights unmet needs in the patient journey. Improvements with regards to communication and the therapeutic relationship would be especially welcomed by patients, and would help manage treatment expectations. Implications of Rehabilitation Spasticity has broad impact on the lives of patients and their families that extends beyond the direct physical disability. Patients with spasticity need to be well informed about their condition and treatments available and should be given the opportunity to discuss their expectations. Physicians need to be aware of the patient’s individual needs and expectations in order to better help them achieve their therapeutic goals.

Database: CINAHL

ROBOTIC DEVICES AND BRAIN-MACHINE INTERFACES FOR HAND REHABILITATION POST-STROKE.

Author(s): McConnell, Alistair C.; Moioli, Renan C.; Brasil, Fabricio L.; Vallejo, Marta; Corne, David W.; Vargas, Patricia A.; Stokes, Adam A.

Source: Journal of Rehabilitation Medicine (Stiftelsen Rehabiliteringsinformation); Jul 2017; vol. 49 (no. 6); p. 449-460

Available in full text at Journal of rehabilitation medicine [J Rehabil Med] NLMUID: 101088169 - from EBSCOhost

Abstract: Objective: To review the state of the art of robotic-aided hand physiotherapy for post-stroke rehabilitation, including the use of brain-machine interfaces. Each patient has a unique clinical history and, in response to personalized treatment needs, research into individualized and at-home treatment options has expanded rapidly in recent years. This has resulted in the development of many devices and design strategies for use in stroke rehabilitation. Methods: The development progression of robotic-aided hand physiotherapy devices and brain-machine interface systems is outlined, focussing on those with mechanisms and control strategies designed to improve recovery outcomes of the hand post-stroke. A total of 110 commercial and non-commercial hand and wrist devices, spanning the 2 major core designs: end-effector and exoskeleton are reviewed. Results: The growing body of evidence on the efficacy and relevance of incorporating brain-machine interfaces in stroke rehabilitation is summarized. The challenges involved in integrating robotic rehabilitation into the healthcare system are discussed. Conclusion: This review provides novel insights into the use of robotics in physiotherapy practice, and may help system designers to develop new devices.

Database: CINAHL

25. The effect of progressive shoulder-neck exercise on cervical muscle functions of middle-aged and senior patients with chronic neck pain: a randomized controlled trial.

Author(s): Lin, I Hsien; Chang, Kwang H; Liou, Tsan H; Tsou, Chih M; Huang, Yi C

Source: European Journal of Physical and Rehabilitation Medicine; Jul 2017

Abstract: BACKGROUND: Although neck pain is a common musculoskeletal disorder, there is no consensus on suitable exercise methods for middle-aged and senior patients with chronic neck pain. Therefore, this study investigated the effectiveness of a 6-week shoulder-neck exercise intervention program on cervical muscle function improvement in ≥45-year old patients with chronic neck pain. AIM To evaluated the effects of progressive shoulder-neck exercise on cervical muscle functions of middle-aged and senior patients with chronic neck pain. DESIGNA randomized controlled Single-blind trial. SETTING Rehabilitation department of a hospital. POPULATION: A total of 72 subjects aged ≥45 years with chronic neck pain were randomly allocated to either a experimental group (n = 36; age 57.3±8.74 years) or a control group (n = 36; age 58.15±8.17 years).METHODS The control group received only traditional physiotherapy, whereas the experimental group participated in a 6-week shoulder-neck exercise program consisting of cranio-cervical flexion and progressive resistance exercises in addition to receiving traditional physiotherapy. The muscle functions of subjects in both groups were tested before the experiment and also
after the intervention program. The pretest and posttest measured the cranio-cervical flexion test (CCFT) and the superficial cervical muscle strength. RESULTS: After the intervention, the experimental group had a 56.48-point improvement in the performance index of the CCFT (P<0.001), a 1.71-kg improvement in superficial neck flexor strength (P<0.001), and a 2.52-kg improvement in superficial neck extensor strength (P<0.001), indicating that in 6-week intervention significantly influenced the improvement of cervical muscle functions. CONCLUSIONS: This study confirmed that the 6-week progressive shoulder-neck exercise program can effectively improve cervical muscle function in middle-aged and senior patients with chronic neck pain. CLINICAL REHABILITATION IMPACT Progressive shoulder-neck exercise might provide positive effect on deep and superficial neck muscle strength in patients with chronic neck pain. Therefore, this study may serve as a reference for the clinical rehabilitation of patients with chronic neck pain.

**Database:** Medline

**Scoping review of outcome measures used in telerehabilitation and virtual reality for post-stroke rehabilitation.**

**Author(s):** Veras, Mirella; Kairy, Dahlia; Rogante, Marco; Giacomozzi, Claudia; Saraiva, Silvia

**Source:** Journal of telemedicine and telecare; Jul 2017; vol. 23 (no. 6); p. 567-587

**Abstract:** Introduction Despite the increased interest in telerehabilitation (TR), virtual reality (VR) and outcome measures for stroke rehabilitation, surprisingly little research has been done to map and identify the most common outcome measures used in TR. For this review, we conducted a systematic search of the literature that reports outcome measures used in TR or VR for stroke rehabilitation. Our specific objectives included: 1) to identify the outcome measures used in TR and VR studies; and 2) to describe which parts of the International Classification of Functioning are measured in the studies. Methods We conducted a comprehensive search of relevant electronic databases (e.g. PubMed, the Cumulative Index to Nursing and Allied Health Literature, Embase, PSYCOINFO, The Cochrane Central Register of Controlled Trial and the Physiotherapy Evidence Database). The scoping review included all study designs. Two reviewers conducted pilot testing of the data extraction forms and independently screened all the studies and extracted the data. Disagreements about inclusion or exclusion were resolved by consensus or by consulting a third reviewer. Results In total, 28 studies were included in this scoping review. The results were synthesized and reported considering the implications of the findings within the clinical practice and policy context. Discussion This scoping review identified a wide range of outcome measures used in VR and TR studies and helped identify gaps in current use of outcome measures in the literature. The review also informs researchers and end users (i.e. clinicians, policymakers and researchers) regarding the most appropriate outcome measures for TR or VR.

**Database:** Medline

**Physical therapy and exercise interventions in Huntington's disease: a mixed methods systematic review protocol.**

**Author(s):** Quinn, Lori; Busse, Monica; Carrier, Judith; Fritz, Nora; Harden, Jane; Hartel, Lynda; Kegelmeyer, Deb; Kloos, Anne; Rao, Ashwini

**Source:** JBI database of systematic reviews and implementation reports; Jul 2017; vol. 15 (no. 7); p. 1783-1799

**Abstract:** REVIEW QUESTION/OBJECTIVE: The review seeks to evaluate the effectiveness of physical therapy and exercise interventions in Huntington's disease (HD). The review question is: What is the effectiveness of physiotherapy and therapeutic exercise interventions in people with HD, and what are patients', families' and caregivers' perceptions of these interventions? The specific objectives are: This mixed methods review seeks to develop an aggregated synthesis of quantitative, qualitative and narrative systematic reviews on physiotherapy and exercise interventions in HD, in an attempt to derive conclusions and recommendations useful for clinical practice and policy decision-making.

**Database:** Medline

**Collaborative goal setting with and for children as part of therapeutic intervention.**

**Author(s):** Costa, Ursula M.; Brauchle, Gernot; Kennedy-Behr, Ann

**Source:** Disability & Rehabilitation; Jul 2017; vol. 39 (no. 16); p. 1589-1600

**Abstract:** Purpose: This study explored collaborative goal setting with children, parents, and teachers, and children's reasons for their goals based on their perceived self-efficacy, using the Austrian-German Perceived Efficacy and Goal Setting System (AG-PEGS). Method: Thirty-eight children from age 5 to 10 years (referred to occupational therapists because of difficulties in performing everyday activities), their parents and teachers participated in this mixed methods study. Participants’ goals were analyzed using
Computerised Mirror Therapy is feasible for clinical use and can be more effective in the use of inpatient time and enhance recoveries for patients. Implications for Rehabilitation pave the way for using technology to provide mirror therapy in clinical settings. This combination was integrated into the therapeutic plan of subacute stroke patients at the Center for Brain and Movement Research (CBMR), which is part of the Kate L. Evans Institute. Conclusions: Exploring clients' priorities, the meanings they attributed to activities in daily life, and their underlying motives for goals should be part of therapeutic intervention. Children and their caregivers are valid and important sources for therapeutic goal setting. Basic human needs, e.g., for relatedness, competence (self-efficacy), autonomy, and meaningful personal orientation, should be considered when prioritizing goals for intervention.

**Database:** CINAHL

**Living with transversal upper limb reduction deficiency: limitations experienced by young adults during their transition to adulthood.**

**Author(s):** Lankhorst, Ilse M. F.; Baars, Erwin C. T.; van Wijk, Iris; Janssen, Wim G. M.; Poelma, Margriet J.; van der Sluis, Corry K.

**Source:** Disability & Rehabilitation; Jul 2017; vol. 39 (no. 16); p. 1623-1630

**Abstract:** Introduction: During transition to adulthood young adults with disabilities are at risk of experiencing limitations due to changing physical and social requirements. Purpose: To determine whether young adults with transversal upper limb reduction deficiency (tULRD) have experienced limitations in various domains of participation during transition to adulthood and how they dealt with these limitations. Participants: Fifteen participants (mean age 21.4 years) with tULRD. Methods: A qualitative study was performed using a semi-structured interview based on the Rotterdam Transition Profile to identify the limitations experienced in participation domains. Results: Almost all the participants reported difficulties in finding a suitable study or job. Most young adults were convinced they were suitable for almost any study or job, but their teachers and potential employers were more reserved. Few difficulties were reported on the domains leisure activities, intimate relationships/sexuality, housing/housekeeping and transportation. Participants preferred to develop their own strategies for dealing with limitations. Various aids, adaptations and prostheses were used to overcome limitations. Rehabilitation teams were infrequently consulted for advice in solving transitional problems. Conclusion: Young adults with tULRD experience limitations mainly in choosing and finding a suitable study or job. Rehabilitation teams may play a more extensive role in supporting individuals with transitional problems.

**Database:** CINAHL

**Computerised mirror therapy with Augmented Reflection Technology for early stroke rehabilitation: clinical feasibility and integration as an adjunct therapy.**

**Author(s):** Hoermann, Simon; Ferreira dos Santos, Luara; Morkisch, Nadine; Jettkowski, Katrin; Sillis, Moran; Devan, Hemakumar; Kanagasabai, Parimala S.; Schmidt, Henning; Krüger, Jörg; Kohler, Christian; Regenbrecht, Holger; Hale, Leigh; Cutfield, Nicholas J.

**Source:** Disability & Rehabilitation; Jul 2017; vol. 39 (no. 15); p. 1503-1514

**Abstract:** Purpose: New rehabilitation strategies for post-stroke upper limb rehabilitation employing visual stimulation show promising results, however, cost-efficient and clinically feasible ways to provide these interventions are still lacking. An integral step is to translate recent technological advances, such as in virtual and augmented reality, into therapeutic practice to improve outcomes for patients. This requires research on the adaptation of the technology for clinical use as well as on the appropriate guidelines and protocols for sustainable integration into therapeutic routines. Here, we present and evaluate a novel and affordable augmented reality system (Augmented Reflection Technology, ART) in combination with a validated mirror therapy protocol for upper limb rehabilitation after stroke. Method: We evaluated components of the therapeutic intervention, from the patients' and the therapists' points of view in a clinical feasibility study at a rehabilitation centre. We also assessed the integration of ART as an adjunct therapy for the clinical rehabilitation of subacute patients at two different hospitals. Results: The results showed that the combination and application of the Berlin Protocol for Mirror Therapy together with ART was feasible for clinical use. This combination was integrated into the therapeutic plan of subacute stroke patients at the two clinical locations where the second part of this research was conducted. Conclusions: Our findings pave the way for using technology to provide mirror therapy in clinical settings and show potential for the more effective use of inpatient time and enhanced recoveries for patients. Implications for Rehabilitation: Computerised Mirror Therapy is feasible for clinical use. Augmented Reflection Technology can be
integrated as an adjunctive therapeutic intervention for subacute stroke patients in an inpatient setting. Virtual Rehabilitation devices such as Augmented Reflection Technology have considerable potential to enhance stroke rehabilitation.

**Database:** CINAHL

**Tele-rehabilitation service delivery journey from prototype to robust in-home use.**

**Author(s):** Kizony, Rachel; Weiss, Patrice L.; Harel, Sharon; Feldman, Yoram; Obuhov, Alexei; Zeilig, Gabi; Shani, Mordechai

**Source:** Disability & Rehabilitation; Jul 2017; vol. 39 (no. 15); p. 1532-1540

**Abstract:** Purpose: The purpose of this study is to present a retrospective study on clients with Acquired Brain Injury (ABI) enrolled in a tele-motion-rehabilitation service program for two or more months. Methods: Data from 82 clients (46 males; 74 with ABI), aged 22–85 years, are reported. The Kinect-based CogniMotion System (ReAbility Online, Gertner Institute, Tel Hashomer, Israel) provided services that included 30-min biweekly sessions. Participants were evaluated prior to and 2 months following the commencement of service with clinical assessments that measured movements and function of the weaker upper extremity and cognitive abilities. Results: Clients enrolled in the service had intact or mild cognitive impairment, mild-moderate motor impairment but little use of their weak upper extremity for daily activities. They were satisfied with the service and reported high levels of system usability. Post-intervention clinical assessments were performed on about half of the participants after 2 months; significant improvements in active movements of the weak upper extremity, shoulder flexion range of motion and in the Trail Making Test were found (p < 0.05). Conclusions: The service appears to be feasible for people with ABI and effective in important clinical outcomes related to improvements in upper extremity function. Implications for Rehabilitation Tele-rehabilitation provided with Microsoft Kinect 3D sensor virtual reality tracking system is feasible for people with Acquired Brain Injury. People with Acquired Brain Injury in the chronic stage were satisfied with the tele-rehabilitation service and perceived it as beneficial to improve their motor and cognitive abilities The CogniMotion System service appears to be effective in important clinical outcomes related to improvements in upper extremity function.

**Database:** CINAHL

**6. An innovative training program based on virtual reality and treadmill: effects on gait of persons with multiple sclerosis.**

**Author(s):** Peruzzi, Agnese; Zarbo, Ignazio Roberto; Cereatti, Andrea; Della Croce, Ugo; Mirelman, Anat

**Source:** Disability & Rehabilitation; Jul 2017; vol. 39 (no. 15); p. 1557-1563

**Abstract:** Aim: In this single blind randomized controlled trial, we examined the effect of a virtual reality-based training on gait of people with multiple sclerosis. Methods: Twenty-five individuals with multiple sclerosis with mild to moderate disability were randomly assigned to either the control group (n = 11) or the experimental group (n = 14). The subjects in the control group received treadmill training. Subjects in the experimental group received virtual reality based treadmill training. Clinical measures and gait parameters were evaluated. Result: Subjects in both the groups significantly improved the walking endurance and speed, cadence and stride length, lower limb joint ranges of motion and powers, during single and dual task gait. Moreover, subjects in the experimental group also improved balance, as indicated by the results of the clinical motor tests (p < 0.05). Between-group comparisons revealed that the experimental group improved significantly more than control group in hip range of motion and hip generated power at terminal stance at post-training. Conclusion: Our results support the perceived benefits of training programs that incorporate virtual reality to improve gait measures in individuals with multiple sclerosis. Implication of rehabilitation Gait deficits are common in multiple sclerosis (85%) and worsen during dual task activities. Intensive and progressive treadmill training, with and without virtual reality, is effective on dual task gait in persons with multiple sclerosis. Virtual reality-based treadmill training requiring obstacle negotiation increases the range of motion and the power generated at the hip, consequently allowing longer stride length and, consequently, higher gait speed.

**Database:** CINAHL

**Community-Based Rehabilitation to Improve Stroke Survivors’ Rehabilitation Participation and Functional Recovery.**

**Author(s):** Xiaojuan Ru; Hong Dai; Bin Jiang; Ninghua Li; Xingquan Zhao; Zhen Hong; Li He; Wenzhi Wang

**Source:** American Journal of Physical Medicine & Rehabilitation; Jul 2017; vol. 96 (no. 7)
Abstract: Objective: The aim of this study was to evaluate the effectiveness of a community-based rehabilitation appropriate technique (CRAT) intervention program in increasing rehabilitation participation and improving functional recovery of stroke survivors. Design: This study followed a quasi-experimental design. In each of 5 centers servicing approximately 50,000 individuals, 2 communities were designated as either the intervention or control community. A CRAT intervention program, including 2-year rehabilitation education and 3-month CRAT treatment, was regularly implemented in the intervention communities, whereas there was no special intervention in the control community. Two sampling surveys, at baseline and after intervention, were administered to evaluate the rehabilitation activity undertaken in intervention communities, stroke survivor's motor function, daily activity, and social activity were evaluated pretreatment and posttreatment, using the Fugl-Meyer Motor Function Assessment, Barthel index, and social Functional Activities Questionnaire. Results: The proportion of individuals participating in rehabilitation-related activity was increased significantly (P  0.05). Conclusions: Community-based rehabilitation appropriate technique increases rehabilitation participation rates and enhances motor function, daily activity, and social activity of stroke survivors.

Database: CINAHL

The use of step aerobics and the stability ball to improve balance and quality of life in community-dwelling older adults – a randomized exploratory study.

Author(s): Dunsky, Ayelet; Yahalom, Tal; Arnon, Michal; Lidor, Ronnie
Source: Archives of Gerontology & Geriatrics; Jul 2017; vol. 71 ; p. 66-74

Abstract: Objective To explore the use of step aerobics (SA) and the stability ball (SB) as tools for balance improvement in community-dwelling older adults. Method Forty-two women (age: 72.2 ± 5.8 years) who attended a community day center volunteered to participate in the study. Following the first assessment session, 28 women were assigned randomly to one of two experimental groups (the use of either SA or SB). The other 14 participants, who were engaged in a ceramic class, served as the control group. The study design was based on four assessment sessions and eight weeks of intervention. Assessment included four balance tests: Timed Up and Go (TUG), One-Leg Stand, Functional Reach, and the Performance-Oriented Assessment of Mobility (POMA). Quality of life was assessed by the use of the Short Form-36 Health Survey questionnaire. Results The TUG and POMA intervention improved significantly (d = .83 and d = .95, respectively) following the SA. In addition, general health perception following both the SA and SB interventions improved significantly relative to the control condition (d = .62 and d = .22, respectively). Discussion The findings of this study may imply that trainers should consider the inclusion of SA and SB as components of physical activity programs for seniors, aimed at improving balance ability and quality of life.

Database: CINAHL

Therapists as expert witnesses: A practitioner’s viewpoint.

Author(s): Swann, Julie I.
Source: International Journal of Therapy & Rehabilitation; Jul 2017; vol. 24 (no. 7); p. 311-314

Abstract: This article discusses the role of therapists as expert witnesses in cases such as personal injury, medical negligence, and housing needs. Topics covered include the types of expert work, the roles of main expert professionals such as nurse, occupational therapist and physiotherapist and the main areas they covered, and the essential court guidelines for experts in Great Britain. Mentioned also are ways experts can gain clients, including business generation, Internet listings and websites.

Database: CINAHL


Author(s): Roios, Edite; Paredes, Ana Cristina; Alves, António F.; Pereira, M. Graça
Source: Journal of Health Psychology; Jul 2017; vol. 22 (no. 8); p. 1012-1024

Abstract: This study focused on cognitive representations of low back pain patients receiving chiropractic (n = 213) versus physiotherapy treatment (n = 125). Variables assessed included satisfaction with care, illness perceptions, beliefs about pain and medicines, attitudes towards doctors and medicine, suffering, adherence and functional incapacity. In the chiropractic treatment, functional incapacity was predicted by painful symptoms, suffering and personal control, and in the physiotherapy treatment by age, pain intensity, positive suffering, care satisfaction, illness identity and medication adherence. The groups differed on all cognitive variables assessed. Interventions should take into consideration cognitive dimensions, across treatment modalities.
Strengthening health systems to provide rehabilitation services...This editorial was originally published in the Bulletin of the World Health Organization (Krug & Cieza, 2017).

Author(s): Krug, Etienne; Cieza, Alarcos

Abstract: The article focuses on the significance of rehabilitation services. It is mentioned that the potential of rehabilitation for significant cost savings and its role in maximizing the impact of other health services is frequently underestimated and misunderstood. It is also noted that rehabilitation should be incorporated into the package of essential services and is part of universal health coverage.

What are the Main Physical Functioning Factors Associated With Falls Among Older People With Different Perceived Fall Risk?

Author(s): Moreira, Mirian N.; Bilton, Tereza L.; Dias, Rosangela C.; Ferrioli, Eduardo; Perracini, Monica R

Abstract: Background and Purpose Fall risk perceptions may influence the judgement over physical and functional competencies to avoid falls. However, few studies have explored the physical functioning characteristics associated with falls among older people with low perceived fall risk. This study aimed to identify the prevalence of falls and physical functioning factors associated with falling among community-dwelling older adults with low and high perceived fall risk. Methods We conducted a cross-sectional population based study with 773 community-dwelling elders. Perceived fall risk was investigated using Falls Efficacy Scale International. We considered fallers those who reported at least one fall in the previous 12 months. Physical functioning measures used were grip strength, usual gait speed, sit-to-stand test, five step test, timed up and go test, one-legged stance test, anterior and lateral functional reach test. Results At least one fall was reported by 103 (30%) participants with low perceived fall risk and by 196 (46%) participants with high perceived fall risk. The odds of falling were lower among those with greater grip strength and with a greater stance time in one-legged test, and the odds of falling among elders with high perceived fall risk were higher among those who took more time in performing the five step test. Discussion We believe that our results highlight the need of not neglecting the risk of falls among active older adults with low perceived fall risk, particularly in those elders that show reduced stability in a small base of support and a lower leg strength. In addition, we suggest that elders with high perceived fall risk should be assessed using anticipatory postural adjustment tests. Particularly, our results may help physiotherapists to identify eligible elders with different perceptions of fall risk for tailored interventions aimed at reducing falls.

Perceived Preparedness to Implement Evidence-Based Practice by Certified Rehabilitation Counselors: A Qualitative Content Analysis.

Author(s): Fitzgerald, Sandra; Leahy, Michael J.; Kang, Hyun-Ju; Chan, Fong; Bezyak, Jill

Abstract: The implementation of evidence-based practice (EBP) in rehabilitation counseling has the potential to improve the effectiveness of vocational rehabilitation (VR) services and employment outcomes of people with disabilities. The purpose of this content analysis was to explore certified rehabilitation counselors’ (CRCs) perceptions of the effectiveness of EBP and their preparedness to implement EBP in a variety of rehabilitation counseling settings. Three hundred fourteen CRCs responded to two open-ended questions related to their perceived effectiveness and preparedness to use EBP in VR service delivery practices. Results of this content analysis indicate that CRCs generally recognize the value of EBP and support its use in rehabilitation counseling. However, they identified major individual-level and organizational-level barriers that could hinder the implementation of EBP in the professional practice of rehabilitation counseling. Strong administrative support, adequate funding, time, and continuous training to update skills will be needed to fully implement EBP in rehabilitation counseling.

Predictors of Employment Following Postsecondary Education for Vocational Rehabilitation Participants With Traumatic Brain Injury.

Author(s): Tucker, Mark S.; Degeneffe, Charles Edmund

Abstract: The implementation of evidence-based practice (EBP) in rehabilitation counseling has the potential to improve the effectiveness of vocational rehabilitation (VR) services and employment outcomes of people with disabilities. The purpose of this content analysis was to explore certified rehabilitation counselors’ (CRCs) perceptions of the effectiveness of EBP and their preparedness to implement EBP in a variety of rehabilitation counseling settings. Three hundred fourteen CRCs responded to two open-ended questions related to their perceived effectiveness and preparedness to use EBP in VR service delivery practices. Results of this content analysis indicate that CRCs generally recognize the value of EBP and support its use in rehabilitation counseling. However, they identified major individual-level and organizational-level barriers that could hinder the implementation of EBP in the professional practice of rehabilitation counseling. Strong administrative support, adequate funding, time, and continuous training to update skills will be needed to fully implement EBP in rehabilitation counseling.
Abstract: The purpose of this study was to identify vocational rehabilitation (VR) services associated with employment outcomes of individuals with traumatic brain injury (TBI) who received college training and increased their highest level of postsecondary education completed. The participants were 1,221 individuals with TBI who increased their highest level of postsecondary education while receiving VR services. A logistic regression model containing five demographic and six VR service variables correctly classified 75.4% of cases as competitively employed or not competitively employed. The model explained approximately 10.0% of the variance in competitive employment. Significant predictors associated with competitive employment were the demographic characteristics of ethnicity and age at application. VR service variables that were significant predictors of competitive employment were (a) vocational rehabilitation counseling and guidance, (b) job readiness training, (c) job placement assistance, and (d) personal assistance services. While demographic characteristics and VR services explained a relatively small proportion of the variance in employment outcomes, more robust measurements of the variables have the potential to enhance prediction of outcomes. Provision of job readiness training and personal assistance services should be investigated further to determine the extent to which they serve as indicators of the presence of additional barriers to competitive employment.

Database: CINAHL

Cost effectiveness of the occupation-based approach for subacute stroke patients: result of a randomized controlled trial.

Author(s): Nagayama, Hirofumi; Tomori, Kounosuke; Ohno, Kanta; Takahashi, Kayoko; Nagatani, Ryutaro; Izumi, Ryota; Moriwaki, Kensuke; Yamauchi, Keita

Source: Topics in stroke rehabilitation; Jul 2017; vol. 24 (no. 5); p. 337-344

Abstract: BACKGROUND AND PURPOSE The cost effectiveness of occupational therapy for subacute stroke patients is unclear in the extant literature. Consequently, this study determined the cost effectiveness of the occupation-based approach using Aid for Decision-Making in Occupation Choice (ADOC) for subacute stroke patients compared with an impairment-based approach. METHODS We conducted an economic evaluation from a societal perspective alongside a pilot randomized controlled trial, with a single blind assessor for participants in 10 subacute rehabilitation units in Japan. The intervention group received occupation-based goal setting using ADOC, with interventions focused on meaningful occupations. The control group received an impairment-based approach focused on restoring capacities. For both groups, occupational-therapy intervention was administered more than five times per week, for over 40 min each time, and they received physical and speech therapy prior to discharge. The main outcomes were quality-adjusted life years (QALYs) and total costs. Further, sensitivity analyses were performed to examine the influence of parameter uncertainty on the base case results. RESULTS The final number of participants was 24 in each of the two groups. In terms of QALYs, the intervention group is significantly higher than the control group (p = 0.001, difference 95% CI: 0.002-0.008) and total costs are not statistically significant. Applying a willingness-to-pay threshold of JPY 5 million/QALY, the probability of the occupation-based approach using ADOC being cost effective was estimated to be 65.3%. CONCLUSION The results show that the occupation-based approach is associated with significantly improved QALYs and has potential cost effectiveness, compared with the impairment-based approach.

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