Rehabilitation

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Jason Ovens  
Head of Library & Knowledge Services

Healthcare you can Trust
Title: Stroke survivors over-estimate their medication self-administration (MSA) ability, predicting memory loss.

Citation: Brain Injury, 01 September 2014, vol./is. 28/10(1328-1333), 02699052
Author(s): Barrett, A. M., Galletta, Elizabeth E., Zhang, Jun, Masmela, Jenny R., Adler, Uri S.

Abstract: Background and objective: Medication self-administration (MSA) may be cognitively challenging after stroke, but guidelines are currently lacking for identifying high-functioning stroke survivors who may have difficulty with this task. Complicating this matter, stroke survivors may not be aware of their cognitive problems (cognitive anosognosia) and may over-estimate their MSA competence. The authors wished to evaluate medication self-administration and MSA self-awareness in 24 consecutive acute stroke survivors undergoing inpatient rehabilitation, to determine if they would over-estimate their medication self-administration and if this predicted memory disorder. Methods: Stroke survivors were tested on the Hopkins Medication Schedule and also their memory, naming mood and dexterity were evaluated, comparing their performance to 17 matched controls. Results: The anosognosia ratio indicated MSA over-estimation in stroke survivors compared with controls-no other over-estimation errors were noted relative to controls. A strong correlation was observed between over-estimation of MSA ability and verbal memory deficit, suggesting that formally assessing MSA and MSA self-awareness may help detect cognitive deficits. Conclusions: Assessing medication self-administration and MSA self-awareness may be useful in rehabilitation and successful community-return after stroke.

Title: Women’s experiences of cognitive changes or 'chemobrain' following treatment for breast cancer: A role for occupational therapy?

Citation: Australian Occupational Therapy Journal, 01 August 2014, vol./is. 61/4(230-240), 00450766
Author(s): Player, Lucy, Mackenzie, Lynette, Willis, Karen, Loh, Siew Yim

Abstract: Background/aim Changes to functioning and cognition are commonly reported following chemotherapy. These changes are highly individual, and may not be fully recognised or understood. Breast cancer is the most common cancer diagnosed in women worldwide, yet little is known about the impact of cognitive changes for these women following treatment and many do not benefit from occupational therapy services. The aim was to describe changes in cognitive function experienced by women who had undergone chemotherapy, and the strategies used to overcome the associated challenges. Method This was a qualitative phenomenological study conducted with nine women, aged between 39 and 67 years, from New South Wales. Participants were breast cancer survivors who had received chemotherapy treatment, and self-reported chemobrain symptoms. Data were collected through semi-structured in-depth telephone and face-to-face interviews. Data were transcribed, coded and thematically analysed. Results Six themes described the chemobrain experience for these women. They were: uncertainty about the origin of the chemobrain experience; persistent but inconsistent impacts on function; simple function turned complex; losing functional independence in family life; strategies to maintain function; and the need for recognition of the subjective experience of cancer treatment. Conclusion The experiences of cognitive and functional changes following chemotherapy for those reporting chemobrain symptoms are highly individual, and include the need for adaptive strategies. Some similarities in the types of impairments were experienced. As breast cancer survivorship rates continue to rise, there is a need for occupational therapy services to assist women in returning to daily occupations during or following their cancer treatment.

Title: Informing Therapeutic Practice through the Walking Program Experiences of Rehabilitation Clients With Stroke and Traumatic Brain Injury.

Citation: Therapeutic Recreation Journal, 01 September 2014, vol./is. 48/3(247-261), 00405914
Author(s): Spencer-Cavaliere, Nancy, Bowtell, Dianne, Langager, Megan L.

Abstract: The purpose of this interpretive description case study was to explore the therapeutic recreation walking program experiences of rehabilitation patients. Scannell and Gifford’s (2010) place attachment framework was used as the interpretive lens. Seventeen adults (11 women and 6 men) between 23 and 72 years of age, diagnosed with stroke or traumatic brain injury, participated. Data were collected using semi-structured interviews, participant observations, and field and reflective notes. The analysis led to three
themes: (a) the experience of disability, (b) finding camaraderie, and (c) intentional therapeutic programming. The findings are discussed in the context of place attachment and their implications for practice, specifically in relation to supporting transition to community.

Full Text:
Available from ProQuest in Therapeutic Recreation Journal


Citation: Journal of Head Trauma Rehabilitation, 01 July 2014, vol./is. 29/4(338-352), 08859701
Author(s): Tate, Robyn, Kennedy, Mary, Ponsford, Jennie, Douglas, Jacinta, Velikonja, Diana, Bayley, Mark, Stergiou-Kita, Mary

Abstract: Introduction: Traumatic brain injury (TBI) results in complex cognitive (and other) sequelae. Impairments in executive function and self-awareness are among the most characteristic neuropsychological sequelae and can exert a profound effect on resuming previous life roles. An international group of researchers and clinicians (known as INCOG) convened to develop recommendations for interventions to improve impairments in executive functioning and self-awareness after TBI. Methods: The team reviewed the available literature and ensured the recommendations were current. To promote implementation, the team developed decision algorithms incorporating the recommendations based on inclusion and exclusion criteria of published trials. The team then prioritized the recommendations for implementation and developed audit criteria to evaluate the adherence to the best practice recommendations. Results: Intervention programs incorporating metacognitive strategy instruction for planning, problem-solving, and other cognitive-executive impairments have a solid evidence base. New evidence supports the use of strategies to specifically improve reasoning skills. Substantial support exists for use of direct corrective feedback to improve self-awareness. Conclusions: An increasing number of scientifically well-designed studies are available that demonstrate the effectiveness of a variety of interventions for the remediation of impairments in executive function and self-awareness after TBI.


Citation: Topics in Stroke Rehabilitation, 01 July 2014, vol./is. 21/4(347-357), 10749357
Author(s): Patel, Prakruti, Bhatt, Tanvi

Abstract: Background: The impact of unilateral brain damage, such as that caused by stroke, on the interaction between higher cognitive functions and walking remains uncertain. We compared cognitive-motor interference (CMI) during dual-task (DT) walking between chronic stroke survivors and young adults performing explicitly different cognitive tasks. Methods: Ten community-dwelling chronic stroke survivors and 10 young adults performed 3 cognitive tasks - visual-motor reaction time (VMRT), serial subtraction (SS), and Stroop test (STR) - while sitting and walking. Gait velocity was recorded using an electronic walkway. Cognitive variables included reaction time and number of correct responses. Motor and cognitive costs were computed. Results: DT walking led to significant declines in motor and cognitive performance. Significant main effect of task (P < .01) and group (P < .01) was observed for motor cost. The stroke group showed highest motor cost for SS task, whereas the young group showed highest motor cost for STR task (Group x Task interaction, P < .05). Although cognitive costs for both groups was highest for VMRT and lowest for STR tasks, cognitive cost for SS task was significantly greater for the stroke group compared with the young group (Group x Task Interaction, P < .05). Conclusions: CMI pattern in chronic stroke survivors differs significantly with type of cognitive task. Gradual cognitive decline with chronicity of condition might have a role in altering the CMI pattern in this population. Future studies of DT interventions for stroke survivors might benefit from incorporating working memory tasks in their protocols.
Title: Development and initial validation of the Perceptions of Parental Illness Questionnaire.

Citation: Journal of Health Psychology, July 2014, vol./is. 19/7(931-942), 1359-1053;1461-7277 (Jul 2014)
Author(s): Bogosian, Angeliki, Moss-Morris, Rona, Bishop, Felicity L, Hadwin, Julie

Language: English

Abstract: The Perceptions of Parental Illness Questionnaire was developed based on interviews with 15 adolescents with a parent with multiple sclerosis and refined using cognitive interviews. In total, 104 adolescents with a parent with multiple sclerosis then completed the Perceptions of Parental Illness Questionnaire and adjustment measures at two time points 6 months apart. Principal component analysis resulted in 11 Perceptions of Parental Illness Questionnaire sub-scales. Mixed-effect models showed that adolescents' perceptions of parental multiple sclerosis at baseline rather than disease severity were associated with their psychosocial well-being 6 months later. The results indicate that Perceptions of Parental Illness Questionnaire may be a reliable and valid measure of adolescents' representations of parents' multiple sclerosis. Further studies are needed to replicate these findings with other illness groups. (PsycINFO Database Record (c) 2014 APA, all rights reserved) (journal abstract)

Title: Effect on anxiety and depression of a multifactorial risk factor intervention program after stroke and TIA: A randomized controlled trial.

Citation: Aging & Mental Health, July 2014, vol./is. 18/5(540-546), 1360-7863;1364-6915 (Jul 2014)
Author(s): Ile-Hansen, Hege, Thommessen, Bente, Fagerland, Morten Wang, Oksengard, Anne Rita, Wyller, Torgeir Bruun, Engedal, Knut, Fure, Brynjar

Abstract: Objectives: Depression and anxiety related to stroke are caused by vascular lesions and psychological reactions. Treatment of vascular and modifiable behavioral risk factors reduces the risk of stroke and may also reduce the risk of emotional changes after stroke. We aimed to investigate whether a multifactorial risk factor intervention program in patients with first-ever stroke or transient ischemic attack (TIA) can influence post-stroke anxiety and depressive symptoms in patients one year post-stroke.Method: The study population consisted of first-ever stroke and TIA patients allocated in a randomized, evaluator-blinded, controlled trial to care as usual or a structured and multidisciplinary follow-up including intensive treatment of vascular risk. The primary endpoint (cognition) has previously been reported. The secondary endpoint, reported here, was changes in the Hospital Anxiety and Depression Scale (HADS) from baseline to 12-month follow-up.Results: One hundred and ninety-five patients were randomized. The estimated difference between treatment groups, in changes in HADS, from baseline to 12 months was -1.32 (95% confidence interval: -2.61, -0.04; P = 0.044) in favor of the intervention group. One year post-stroke, 4/85 (4.7%) patients in the intervention group and 12/89 (13.5%) in the control group suffered from depression (P = 0.045), while 7/85 (8.2%) patients in the intervention group and 13/89 (14.6%) patients in the control group suffered from anxiety (P = 0.19).Conclusion: A structured, multidisciplinary, multifactorial risk factor program including vascular risk factor management may be associated with reduced HADS scores and a lower prevalence of depressive symptoms one year after stroke. (PsycINFO Database Record (c) 2014 APA, all rights reserved) (journal abstract)

Title: Long Term Efficacy of an Integrated Neurological and Vocational Rehabilitation Programme for Young Adults with Acquired Brain Injury.

Citation: Journal of Occupational Rehabilitation, 01 September 2014, vol./is. 24/3(533-542), 10530487
Author(s): Foy, Catherine

Abstract: Purpose To characterise and determine the pre-injury, injury and post-injury factors associated with vocational outcome 1-9 years post-discharge from a mixed therapy/educational/vocational rehabilitation (VR) residential programme. Methods 119 clients of working age when they acquired their brain injury and who had attended the centre between 2002 and 2011 were followed up at least 1 year post-discharge to determine their vocational outcome as part of an ongoing review/audit of the service. All clients had had a severe/very severe brain injury. Clients were classified as having a positive vocational
outcome (working-paid/voluntary, full/part-time or undertaking full or part-time vocationally related education) or negative vocational outcome (undertaking neither work nor education). Results Over half of the clients attained a positive vocational outcome. Length of time since discharge did not differ between those clients with a positive or negative vocational outcome. Vocational outcome was predicted by cognitive and motor ability at discharge, and gender. Together these variables correctly classified the vocational outcome of 76% of the clients. Conclusion Clients with severe/very severe brain injury can attain a positive vocational outcome following intensive neurorehabilitation consisting of traditional therapies in addition to educational and VR.

Title: Feasibility of SaeboFlex Upper-limb Training in Acute Stroke Rehabilitation: A Clinical Case Series.

Citation: Occupational Therapy International, 01 September 2014, vol./is. 21/3(108-114), 09667903
Author(s): Stuck, Rebecca A., Marshall, Lisa M., Sivakumar, Ramachandran

Abstract: Upper-limb (UL) recovery following stroke is often poor. UL rehabilitation therefore continues to be a major focus for occupational therapy. Published evidence for the effectiveness of SaeboFlex training in acute stroke rehabilitation is scarce. The purpose of this study is to explore the feasibility and patient experience of SaeboFlex training in acute stroke. This feasibility study recruited stroke patients (< 84 days post-stroke) with moderate/severe UL weakness. They participated in SaeboFlex sessions for 12 weeks in addition to conventional rehabilitation. A battery of measures was taken at baseline, 4, 8 and 12 weeks. Eight participants were recruited. For the action research arm test score and UL Motricity Index, clinically significant improvements were noted in five out of seven (71%) and six out of seven participants (86%) respectively. Clinically significant improvements were also noted in secondary outcomes. Shoulder complications occurred in one participant. SaeboFlex training facilitated clinically significant improvements in UL function. It has the potential to improve participation and independence in ADLs, reduce carer burden and associated costs. Being a feasibility study with no control arm, we urge caution in interpreting these results. Future research is needed to evaluate the efficacy, optimum dosage and impact on dependency levels of SaeboFlex training as part of a randomized controlled trial Copyright © 2014 John Wiley & Sons, Ltd.

Title: Severity of aphasia and recovery after treatment in patients with stroke.

Citation: Aphasiology, 01 October 2014, vol./is. 28/10(1168-1177), 02687038

Abstract: Background: Aphasia due to stroke is often very severe immediately after onset. However, knowledge about the impact of severity on therapeutic potential in the first months is scarce. The optimal therapeutic approach for patients with severe aphasia is still subject to debate. Aims: To explore the recovery pattern of verbal communication in stroke patients with aphasia of varying degrees of severity receiving language therapy during the first 6 months poststroke. Methods & Procedures: We used data from our previous trial in which 80 patients with aphasia due to stroke were randomised within the first 3 weeks postonset for either cognitive-linguistic therapy (CLT) or communicative therapy. All patients were tested at baseline and at 3 and 6 months postaphasia onset. We formed three severity groups, based on baseline Amsterdam–Nijmegen Everyday Language Test scores. We used repeated measures ANOVA to compare test scores at baseline and at 3 and 6 months poststroke onset for each of the three severity groups, stratified for the two treatments. Outcomes & Results: Patients with severe or very severe aphasia improved substantially during follow-up, especially during the first 3 months poststroke. Improvement was less pronounced in the moderate to mild group. Although improvement did not differ significantly between the two treatment arms of the trial during the first 6 months poststroke, the very severe group seemed to benefit particularly from CLT (mean difference between treatments was 4.1 points; 95% CI: −4.0 to 12.2).

Conclusions: Even in very severely aphasic patients, considerable improvement of functional communication is possible. These patients might benefit more from early initiated CLT therapy than
generally assumed. Hence, speech and language therapists should not refrain from applying CLT in the acute phase of rehabilitation of severe aphasia.

Full Text:
Available from Taylor & Francis in Aphasiology

Title: Acupoint stimulation and rehabilitation from acute stroke.

Citation: Focus on Alternative & Complementary Therapies, 01 September 2014, vol./is. 19/3(163-164), 14653753
Author(s): Gamus, D

Title: Who should have a pre-discharge home assessment visit after a stroke? A qualitative study of occupational therapists’ views.

Citation: British Journal of Occupational Therapy, 15 August 2014, vol./is. 77/8(384-391), 03080226
Author(s): Whitehead, Phillip, Fellows, Karen, Sprigg, Nikola, Walker, Marion, Drummond, Avril

Abstract: Introduction: The number of patients who have a pre-discharge home assessment visit following a stroke has been reported to vary nationally. The purpose of this research was to explore the factors influencing occupational therapists’ decisions to complete such visits. Method: Semi-structured interviews were completed with 20 senior occupational therapists working with stroke in-patients, from a range of urban and rural locations in the United Kingdom. The interviews explored their views about those patients for whom a pre-discharge home assessment visit would and would not be required. The interviews were analysed using thematic analysis. Findings: Three themes were identified: the patient’s level of physical, cognitive, or perceptual impairment and its impact on performance in activities of daily living; factors relating to the patient’s home environment, including the availability of support within the home environment; and other influences on occupational therapists. The presence of a cognitive impairment was a particularly important factor. Conclusions: Occupational therapists balanced aspects from each of these themes in order to determine whether a visit was needed or not. Although the level of impairment was important, the most dependent patients were not necessarily those believed to be the most likely to need a visit.

Title: A Protocol for Encouraging Physical Activity Using Video Games for a Group of Individuals With Chronic Stroke.

Citation: Israel Journal of Occupational Therapy, 01 August 2014, vol./is. 23/3(0-0), 07927002
Author(s): Givon, Noa, Rand, Debbie

Title: The Balance Effect of Acupuncture Therapy Among Stroke Patients.

Citation: Journal of Alternative & Complementary Medicine, 01 August 2014, vol./is. 20/8(618-622), 10755535
Author(s): Huang, Shih-Wei, Wang, Wei-Te, Yang, Tsung-Hsien, Liou, Tsan-Hon, Chen, Guan-Yu, Lin, Li-Fong

Abstract: Objective: To analyze how acupuncture therapy affects balance in patients experiencing their first stroke and to identify the stroke group with greatest improvement in balance after acupuncture intervention. Design: Retrospective case-control study. Setting: Ward of a medical university hospital. Participants: A total of 629 stroke patients were enrolled initially; 345 patients met the study criteria and 132 were analyzed (66 each in the study and control groups). Interventions: The study group received physiotherapy combined with acupuncture and the control group received only physiotherapy. Main outcome measures: The Postural Assessment Scale for Stroke patients (PASS) was used to evaluate balance. This balance scale system can be subdivided into static balance (PASS-MP, maintain posture) and dynamic balance (PASS-CP, change posture). Results: This study revealed no statistically significant
improvement of balance in the study group (t test). When patients with high Brunnstrom stage (Br stage) and low Br stage were analyzed separately, once again no statistical difference was detected between the study and control groups of those with high Br stage. However, among low-Br stage patients, the study group showed significant improvement in static balance (mean PASS-MP score: standard deviation: 4.7±3.7) compared with the control group (PASS-MP score: 2.8±2.7) (p<0.05). Conclusions: In first-ever stroke patients with a low Br stage, acupuncture therapy can improve static balance during rehabilitation. However, the effect on balance was limited among high-Br stage patients. This study provides information valuable to patients with hemiplegic stroke because it suggests that acupuncture can be used to improve balance. A prospective double-blind, randomized, controlled study design is recommended for future studies in patients with hemiplegic stroke.

Title: USING MASSAGE TO EASE TRAUMATIC BRAIN INJURY SYMPTOMS.
Citation: Massage Today, 01 August 2014, vol./is. 14/8(7-18), 15318079
Author(s): Allen, Tina

Title: Community-Based Resources for Concussion Management.
Citation: Seminars in Speech & Language, 01 August 2014, vol./is. 35/3(166-172), 07340478
Author(s): Crawford, Nannette, Sirmon-Taylor, Bess

Abstract: Speech-language pathologists can serve an important role as members of interdisciplinary treatment teams in the rehabilitation of concussion-related cognitive-communicative changes in the community setting. This article discusses the continuum of care for individuals who have experienced concussion and the importance of appropriate assessment and functionally based intervention. Factors such as executive function impairments, sensory overload, and cognitive exertion can yield subtle deficits that can impact functional return to work or school. Community resources such as support groups are discussed, as well as the impact of state and federal policies related to concussion on community activities.

Title: Family needs in the chronic phase after severe brain injury in Denmark.
Citation: Brain Injury, 01 September 2014, vol./is. 28/10(1230-1237), 02699052
Author(s): Doser, Karoline, Norup, Anne

Abstract: Objective: This preliminary study aimed at investigating (1) changes in the status of family members between time of injury and follow-up in the chronic phase and (2) the most important needs within the family in the chronic phase and whether the needs were perceived as met. Participants: The sample comprised 42 relatives (76% female, mean age = 53 years) of patients with severe brain injury, who had received intensive sub-acute rehabilitation. The relatives were contacted in the chronic phase after brain injury. Outcome measure: A set of questions about demographics and time spent caregiving for the patient was completed. The relatives completed the revised version of the Family Needs Questionnaire, a questionnaire consisting of 37 items related to different needs following brain injury. Results: Significant changes in status were found in employment (z = −3.464, p = 0.001) and co-habitation (z = −3.317, p = 0.001). The sub-scale 'Health Information' (Mean = 3.50, SD = 0.73) had the highest mean importance rating, whereas the sub-scale 'Emotional support' (Mean = 3.07, SD = 0.79) had the lowest. When combining importance and met ratings, it was found that the five most important needs were only met in 41-50% of the total sample. Conclusion: Occupational and co-habitation status of the relatives was significantly affected by brain injury. A high number of relatives reported family needs not satisfied in the chronic phase. This requires an interventional approach for families to get these needs fulfilled individually, even after rehabilitation.

Title: Strong evidence exists that multidisciplinary rehabilitation and fatigue management courses improve function and participation in people with multiple sclerosis.
Citation: Australian Occupational Therapy Journal, 01 August 2014, vol./is. 61/4(288-289), 00450766
Author(s): George, Stacey, White, Jennifer
Title: Effect of Gross Motor Group Exercise on Functional Status in Chronic Stroke: A Randomized Controlled Trial.

Citation: Journal of Physical Therapy Science, 01 July 2014, vol./is. 26/7(977-980), 09155287
Author(s): Kwanghyun Kim, Byungjoon Lee, Wanhee Lee

Abstract: [Purpose] The aim of this study was to understand the effects of task-oriented gross motor group exercise based on motor development on chronic stroke patients’ joint, bone, muscle, and motor functions and activities of daily living. [Subjects] Twenty-eight stroke patients hospitalized at P municipal nursing facility for the severely handicapped were randomly assigned to the gross motor group exercise group (experimental group, n=14) or the control group (n=14). [Methods] The two groups performed morning exercise led by a trainer for 30 minutes a day, 5 times a week for 6 weeks in total. The experimental group performed a gross motor group exercise in addition to this exercise for 50 minutes a day, 3 times a week for 6 weeks in total. Before the experiment, all subjects were measured with the Modified Barthel Index (MBI) and for their neuromuscular skeletal and motor-related functions according to the International Classification of Functioning, Disability and Health. [Results] Significant improvements were found in the experimental group’s neuromusculoskeletal and motor-related functions and MBI test, except for the stability of joint functions. The control group showed no significant difference from the initial evaluation. [Conclusion] The gross motor group exercise based on motor development is recommended for chronic stroke patients with severe handicaps.

Title: Being Deliberate in Postacute Stroke: Strategies to Redeem the Time.

Citation: Topics in Stroke Rehabilitation, 01 July 2014, vol./is. 21/4(281-289), 10749357
Author(s): Rose, Dorian K.

Abstract: Physical rehabilitation post stroke is key to minimizing impairments, restoring functional mobility, and returning individuals to their life roles. The reimbursable time allotted to attain those goals in the current health care environment is limited and is not projected to increase. It is critical, therefore, for rehabilitation professionals to re-evaluate how they use their limited time with clients. Repetition is the foundation for changes in representational organization of the motor cortex and for motor skill learning. Drawing from animal and human motor learning literature as well as completed clinical trials, we delineate strategies that can be implemented with individual patients to most prudently redeem the time spent with them and to best steward their recovery.

Title: Assessing and Treating Higher Level Somatosensory Impairments Post Stroke.

Citation: Topics in Stroke Rehabilitation, 01 July 2014, vol./is. 21/4(290-295), 10749357
Author(s): Borstad, Alexandra L., Nichols-Larsen, Deborah S.

Abstract: Poststroke somatosensory impairment is prevalent, yet commonly used clinical measures lack the sensitivity needed to quantify impairment and detect change due to intervention. This selective review, prepared and presented as a part of the 1-Treat Conference (June 22, 2013, Columbus, Ohio), discusses the prevalence of somatosensory impairment after stroke, high lights measures of higher level somatosensory processing, and briefly reviews sensorimotor rehabilitation. The goal of this article is to encourage dialogue regarding the development and use of measures of higher level somatosensory function that will enable personalization of sensorimotor rehabilitation.

Title: Upper Limb Casting in Stroke Rehabilitation: Rationale, Options, and Techniques.

Citation: Topics in Stroke Rehabilitation, 01 July 2014, vol./is. 21/4(296-302), 10749357
Author(s): Flinn, Sharon R., Craven, Kimberly
Abstract: Upper limb casts have been recommended for stroke survivors with moderate to severe spasticity. The objective of this article is to (a) review the rationale of 2 theoretical models that address spasticity and its consequences, (b) describe 4 casting options reported in the literature, (c) present the evidence for each cast type, and (d) suggest techniques that ensure safe and efficient fabrication of casts. This review underscores the critical need for high-evidence research on the efficacy of casting and the potential long-term benefits to this population. Current evidence lacks controlled research designs, robust sample sizes, and sensitive outcome measures. However, selective groups of stroke survivors have benefited from each type of casting. Future studies are required to assess the impact of casting on upper limb function, especially for those persons with wrist and hand spasticity, and to evaluate the efficacy of those casts not widely adopted in current practice such as inhibitory and drop-out casts.

Title: Selecting Measures for Balance and Mobility to Improve Assessment and Treatment of Individuals After Stroke.

Citation: Topics in Stroke Rehabilitation, 01 July 2014, vol./is. 21/4(303-315), 10749357
Author(s): Kegelmeyer, Deb A., Kloos, Anne D., Sites, Amelia B.

Abstract: Assessment of individuals with stroke using reliable and valid outcome measures is a key component of the treatment planning process. Health care professionals may have difficulty selecting balance and mobility measures given the large number of measures to choose from. This article utilizes a case-based approach to describe the benefits of using a common set of outcome measures and a process for selecting optimal measures across body structure/function, activity, and participation domains of the International Classification of Functioning, Disability and Health (ICF) model and stages of stroke recovery. Specific measures for use in acute care, rehabilitation, outpatient, and home health care settings are discussed based on StrokEDGE task force recommendations by the Neurology Section of the American Physical Therapy Association.

Title: Modified Constraint-Induced Movement Therapy for Upper Extremity Recovery Post Stroke: What Is the Evidence?

Citation: Topics in Stroke Rehabilitation, 01 July 2014, vol./is. 21/4(319-331), 10749357
Author(s): Fleet, Alana, Page, Stephen J., MacKay-Lyons, Marilyn, Boe, Shaun G.

Abstract: Background: Constraint-induced movement therapy (CIMT) is an effective treatment for upper extremity (UE) recovery post stroke. Difficulties implementing a traditional CIMT approach have led to development of protocols featuring varying practice schedules, including a 10-week, 3 times per week intervention, termed modified CIMT (mCIMT). To date, systematic reviews of CIMT have grouped the various protocols, precluding the ability to ascertain the level of evidence (LOE) of specific CIMT protocols. Knowing the LOE for various protocols and their relative effectiveness may facilitate decision making regarding which protocol to implement. Objective: The aim of this study was to determine the LOE of mCIMT in promoting UE recovery post stroke. Methods: A comprehensive literature search and subsequent analysis identified studies of a range of designs that investigated the mCIMT protocol. Two independent reviewers assigned an LOE to each of the identified studies, which were then examined collectively to determine the overall LOE for mCIMT. Study results were reviewed to assess the effectiveness of mCIMT for improving UE recovery. Results: Of 473 studies identified, 15 utilized mCIMT. The lack of randomized controlled trials (RCT) resulted in assigning an intermediate LOE (C). Study results indicated that participants receiving mCIMT experienced clinically significant improvements in UE impairment and activity-level attributes. Conclusion: The mCIMT protocol is an effective intervention for UE recovery post stroke. Future research including large RCTs could potentially increase the LOE for mCIMT Additional investigation into the effectiveness of mCIMT in acute and subacute stroke populations is warranted given the limited number of studies performed to date.

Title: Relationship Between Touch Sensation of the Affected Hand and Performance of Valued Activities in Individuals With Chronic Stroke.

Citation: Topics in Stroke Rehabilitation, 01 July 2014, vol./is. 21/4(339-346), 10749357
Author(s): Hill, Valerie A., Fisher, Thomas, Schmid, Arlene A., Crabtree, Jeffrey, Page, Stephen J.

Abstract: Objective: To investigate the association between touch sensation of the affected hand and performance and satisfaction with performance of valued activities in individuals with chronic stroke. Methods: Using a cross-sectional study design, this study correlated factors related to hand sensation and activity performance in individuals with chronic stroke. The Touch Test Evaluators and Canadian Occupational Performance Measure (COPM) were used. Correlations were used to determine the relationships between touch sensation of the affected hand and individuals' performance and satisfaction with performance of valued activities. Results: There was a good to excellent relationship between sensation and performance and satisfaction with performance of valued activities for individuals with intact touch sensation of the affected hand who scored higher on the COPM. There was little to no relationship between touch sensation of the affected hand and performance of valued activities for individuals with impaired sensation. Conclusion: This is the first study to relate touch sensation of the affected hand and performance and satisfaction with performance of valued activities in individuals with stroke. The findings suggest that rehabilitation therapists need to continue to address sensory function in evaluation and intervention as it relates to performance in valued activities. This study serves as a foundation for future research in sensation and performance of valued activities in individuals with chronic stroke.

Title: Body weight-supported treadmill training vs. overground walking training for persons with chronic stroke: a pilot randomized controlled trial.

Citation: Clinical Rehabilitation, 01 September 2014, vol./is. 28/9(873-884), 02692155
Author(s): Combs-Miller, Stephanie A, Kalpathi Parameswaran, Anu, Colburn, Dawn, Ertel, Tara, Harmeyer, Amanda, Tucker, Lindsay, Schmid, Arlene A

Full Text:
Available from ProQuest in Clinical Rehabilitation

Title: Immediate therapeutic effect of interferential current therapy on spasticity, balance, and gait function in chronic stroke patients: a randomized control trial.

Citation: Clinical Rehabilitation, 01 September 2014, vol./is. 28/9(885-891), 02692155
Author(s): Suh, Hye Rim, Han, Hee Chul, Cho, Hwi-young

Full Text:
Available from ProQuest in Clinical Rehabilitation

Title: Web-based physiotherapy for people moderately affected with Multiple Sclerosis; quantitative and qualitative data from a randomized, controlled pilot study.

Citation: Clinical Rehabilitation, 01 September 2014, vol./is. 28/9(924-935), 02692155
Author(s): Paul, Lorna, Coulter, Elaine H, Miller, Linda, McFadyen, Angus, Dorfman, Joe, Mattison, Paul George G

Full Text:
Available from ProQuest in Clinical Rehabilitation

Title: Feasibility and Potential Efficacy of High-Intensity Stepping Training in Variable Contexts in Subacute and Chronic Stroke.

Citation: Neurorehabilitation & Neural Repair, 01 September 2014, vol./is. 28/7(643-651), 15459683
Author(s): Holleran, Carey L., Straube, Don D., Kinnaird, Catherine R., Leddy, Abigail L., Hornby, T. George
Title: Effects of a Mirror-Induced Visual Illusion on a Reaching Task in Stroke Patients: Implications for Mirror Therapy Training.

Citation: Neurorehabilitation & Neural Repair, 01 September 2014, vol./is. 28/7(652-659), 15459683
Author(s): Selles, Ruud W., Michielsen, Marian E., Bussmann, Johannes B. J., Stam, Henk J., Hurkmans, Henri L., Heijnen, Iris, de Groot, Danielle, Ribbers, Gerard M.

Title: Trunk Restraint to Promote Upper Extremity Recovery in Stroke Patients: A Systematic Review and Meta-Analysis.

Citation: Neurorehabilitation & Neural Repair, 01 September 2014, vol./is. 28/7(660-677), 15459683
Author(s): Wee, Seng Kwee, Hughes, Ann-Marie, Warner, Martin, Burridge, Jane H.

Title: Modular Ankle Robotics Training in Early Subacute Stroke: A Randomized Controlled Pilot Study.

Citation: Neurorehabilitation & Neural Repair, 01 September 2014, vol./is. 28/7(678-687), 15459683
Author(s): Forrester, Larry W., Roy, Anindo, Krywonis, Amanda, Kehs, Glenn, Krebs, Hermano Igo, Macko, Richard F.

Title: The Effects of Peroneal Nerve Functional Electrical Stimulation Versus Ankle-Foot Orthosis in Patients With Chronic Stroke: A Randomized Controlled Trial.

Citation: Neurorehabilitation & Neural Repair, 01 September 2014, vol./is. 28/7(688-697), 15459683

Title: Associations between social participation and subjective quality of life for adults with moderate to severe traumatic brain injury.

Citation: Disability & Rehabilitation, 15 August 2014, vol./is. 36/17(1409-1418), 09638288
Author(s): McLean, Alison M., Jarus, Tal, Hubley, Anita M., Jongbloed, Lyn

Abstract: Purpose: To examine the association between social participation and subjective quality of life (SQOL) for non-employed, community-dwelling adults with moderate to severe traumatic brain injury (TBI) at 1 year or greater post-injury. Method: A correlational study was conducted involving 46 participants. Social participation was measured using the Community Integration Questionnaire, Social Provisions Scale and the Adult Subjective Assessment of Participation. SQOL was measured using the Quality of Life and Health Questionnaire, Abdel-Khalek Happiness Scale and UCLA Loneliness Scale. Results: Higher levels of happiness and global quality of life were each associated with higher levels of enjoyment, satisfaction with performance and higher proportion of activities performed with others. Lower levels of loneliness were associated with higher levels of general social integration and higher levels of perceived social supports. There were no associations found between SQOL and the objective social participation measures of diversity, frequency (intensity) or proportion of activities performed outside of home. Conclusions: Findings contribute to the TBI literature in showing that it is: (a) the more subjective and not objectively measured nature of participation that is associated with SQOL and (b) positive and negative aspects of quality of life show different relationships with social participation variables.
Title: Talking about sex after traumatic brain injury: perceptions and experiences of multidisciplinary rehabilitation professionals.

Citation: Disability & Rehabilitation, 15 August 2014, vol./is. 36/17(1431-1438), 09638288
Author(s): Dyer, Kerry, das Nair, Roshan

Abstract: Purpose: Research indicates that although 50-60% of people who have had a traumatic brain injury (TBI) experience changes in sexual functioning, sexuality issues remain largely unaddressed in rehabilitation. This study aimed to explore rehabilitation professionals' perceptions and experiences of discussing sexuality with service-users who have had a TBI. Method: Purposeful sampling was used to recruit 24 participants from two local National Health Service trusts and from a national charity. Four focus groups were conducted with pre-existing groups of professionals, using a semi-structured interview schedule. Focus group data were transcribed verbatim and analysed using thematic analysis. Results: Six main themes were derived from the analysis: (1) sexuality after TBI is a specialist issue; (2) sexuality is a sensitive subject; (3) practicalities of discussing sexuality; (4) roles and responsibilities; (5) dilemmas about risk and vulnerabilities; and (6) organisational and structural issues. Conclusions: Our findings suggest that a more proactive approach to addressing sexuality issues be taken by incorporating sexuality into assessments and by having sexuality information available for service-users. Support for professionals is also needed in the form of the development of policy, on-going training and supervision.

Title: Left/right judgement does not influence the effect of mirror therapy after stroke.

Citation: Disability & Rehabilitation, 15 August 2014, vol./is. 36/17(1452-1456), 09638288
Author(s): Lundquist, Camilla B., Nielsen, Jørgen F.

Abstract: Purpose: To investigate the correlation between left/right judgement and the effect of mirror therapy (MT). A partial aim was to describe adverse effects of MT. Methods: This prospective follow-up study included 36 stroke patients, mean time since stroke was 33 d, SD 23. Left/right judgement is the ability to judge a pictured hand as belonging to one side of the body or the other. In this study, left/right judgement was established before the onset of MT by asking the patient to recognise left and right hands in photographs. Patients were tested before and after the intervention with the motor assessment scale (MAS) and two-point discrimination (2PD). The correlation between left/right judgement and the change of effect measured on the MAS and 2PD were tested by Spearman's rank correlation. Results: The ability to perform left/right judgement before the onset of MT had no significant correlation with change of effect measured on the MAS and 2PD (rho −0.169, p = 0.363 and rho = −0.227, p = 0.219). Thirty-one patients completed the intervention without adverse effects. Conclusion: Left/right judgement does not influence the effect of MT. There seems to be no reason to test the ability to perform left/right judgement before the onset of MT. MT is an intervention without major adverse effects.

Title: Efficacy of leisure intervention groups in rehabilitation of people with an acquired brain injury.

Citation: Disability & Rehabilitation, 15 August 2014, vol./is. 36/17(1474-1482), 09638288
Author(s): Mitchell, Elizabeth J., Veitch, Craig, Passey, Megan

Abstract: Purpose: To determine whether participation in a week-long residential leisure intervention program targeting individuals with an acquired brain injury (ABI) improved the leisure satisfaction, self-esteem and quality of life (QOL) of participants. The program included leisure awareness, leisure resources, social interaction skills and leisure activity skills. Method: Using a pre- and post-intervention design leisure satisfaction, self-esteem and QOL were assessed prior to, immediately following and at three months post program. Data were analyzed using Wilcoxon signed-rank tests. Results: Participants were eight men and four women aged between 19 and 49 years who were recent clients of a rural Brain Injury Rehabilitation Service. The majority (7/12) had acquired their ABI more than two years previously, and for most (10/12) the cause was trauma. Program participants showed clinically important and statistically significant improvements in leisure satisfaction ( p = 0.002), self-esteem ( p = 0.03) and QOL ( p = 0.02 to 0.008 for four domains of the World Health Organisation Quality of Life - Bref scale) three months post program. Conclusion: Adults with an ABI participating in leisure education programs can experience
improvements in leisure satisfaction, self-esteem and QOL following the program. The findings suggest that active leisure intervention programs should be included in the ongoing rehabilitative care of adults with an ABI.

Title: Managing driving issues after an acquired brain injury: Strategies used by health professionals.

Citation: Australian Occupational Therapy Journal, 01 August 2014, vol./is. 61/4(215-223), 00450766

Author(s): Liddle, Jacki, Hayes, Rebecca, Gustafsson, Louise, Fleming, Jennifer

Abstract: Background/aim The ability to drive safely can be affected by an acquired brain injury. Following acquired brain injury, clients may experience driving disruptions, formal assessment, return to driving or permanent cessation. Health professionals may be involved in formal driving or component skills' assessment and rehabilitation, or interventions for continued community participation. Meeting the needs of clients related to driving remains a challenging area of clinical practice. The aim of this study was to investigate how driving issues are currently managed by acquired brain injury rehabilitation teams. Method This study utilised a qualitative phenomenological approach to gain insight into the approaches undertaken by four rehabilitation teams working with clients post-acquired brain injury. Semi-structured, audiotaped interviews were conducted with 25 participants who had identified driving as part of their role. Results Health professional participants described three major areas of clinical focus, describing strategies and challenges associated with each. These were as follows: 'Integrating driving goals into rehabilitation' which involved optimising timing and acknowledging the clients' focus on driving while enhancing driving and rehabilitation outcomes; 'Managing emotional responses' which required protecting therapeutic relationships and providing information, as well as responding to more extreme responses; and finally 'Managing unlicensed driving and meeting long-term needs', which participants identified as the most challenging aspect. Strategies involved using set procedures, building on knowledge of the client, supporting the family and exploring alternatives. Conclusion The teams described a range of strategies used to address the challenges related to driving and driving cessation which can be applied to successfully manage this issue in acquired brain injury rehabilitation.

Title: Validating the Western Neuro Sensory Stimulation Profile for patients with severe traumatic brain injury who are slow-to-recover.

Citation: Australian Occupational Therapy Journal, 01 August 2014, vol./is. 61/4(276-283), 00450766

Author(s): Cusick, Anne, Lannin, Natasha A., Hanssen, Robyn, Allaus, Jeanine

Abstract: Background/aim The Western Neuro Sensory Stimulation Profile (WNSSP) is designed to measure disorders of consciousness in people with severe traumatic brain injury who are slow-to-recover. This study explores internal consistency reliability and concurrent validity of the WNSSP with function and two other consciousness measures. Method Retrospective chart audit of all severe traumatic brain injury patients admitted to a specialist neurological rehabilitation centre from January 2001 to December 2006 in a vegetative or minimally conscious state. Medical record of demographical, clinical and Glasgow Coma Scale (GCS) data were recorded. To be included in the study, patients needed admission and discharge WNSSP results; plus Functional Independence Measure™ (FIM™) and Rancho Los Amigos Scale (RLAS) scores. Results Of 37 potential participants, 33 had required WNSSP results (mean age 28 years; 27 male participants). Internal consistency reliability was very high (α = 0.933). Concurrent validity in relation to function was significant but weak at admission for FIM™ Total-scale but not subscales (r<sub>s</sub>= −0.146, P = 0.0424). At discharge, there was a modest relationship with FIM™ Motor-subscale (r<sub>s</sub>= 0.374; P = 0.045), and FIM™ Cognition-subscale (r<sub>s</sub>= 0.412; P = 0.026) scores, but not the FIM™ Total-scale. Concurrent validity in relation to the RLAS was strong at admission (r<sub>s</sub>= 0.693, P = 0.01) and discharge (r<sub>s</sub>= 0.788, P = 0.01). The WNSSP and GCS scores were not associated. Conclusion The WNSSP is sensitive to behavioural change in slow-to-recover patients with severe traumatic brain injury. It demonstrates very high internal consistency reliability, and positive evidence of concurrent validity with FIM™ and the RLAS providing detailed description of cognitive-sensory behaviour within RLAS-levels.
Title: Moderate evidence exists for occupational therapy-related interventions for people with Parkinson’s disease in physical activity training, environmental cues and individualised programmes promoting personal control and quality of life.

Citation: Australian Occupational Therapy Journal, 01 August 2014, vol./is. 61/4(287-288), 00450766
Author(s): Liddle, Jacki, Eagles, Ros

Title: Changes in Functional Outcomes in Elderly Patients as a Result of Poststroke Rehabilitation Using the NDT-Bobath Method.

Citation: Topics in Geriatric Rehabilitation, 01 July 2014, vol./is. 30/3(207-215), 08827524
Author(s): Mikołajewska, Emilia

Abstract: Aim: To assess the use of the NDT-Bobath method in poststroke geriatric rehabilitation. Subjects and Methods: Thirty-five elderly poststroke patients admitted to the neurologic rehabilitation ward took part in 10 sessions of the NDT-Bobath therapy. Measurements of the parameters of muscle tone, hand functions, selected activities of daily living, and spatiotemporal gait parameters of velocity, cadence, and stride length were conducted by the same therapist twice: on admission, and after the last session of rehabilitation. Results and Conclusions: Positive statistically significant results were observed within all assessed areas. These findings confirm that the NDT-Bobath method is an effective form of therapy in the elderly after ischemic stroke. There is a need for further research on larger samples of elderly patients, including the control group.

Title: The Influence of Mood-Related Variables on Activity and Participation in Individuals With Chronic Stroke.

Citation: Topics in Geriatric Rehabilitation, 01 July 2014, vol./is. 30/3(216-222), 08827524
Author(s): Van Puymbroeck, Marieke, Altenburger, Peter, Combs-Miller, Stephanie A., Miller, Kristine K., Kean, Jacob, Schmid, Arlene

Abstract: Little information exists about the influence of mood-related variables on the activity and participation of survivors of chronic stroke despite the known implications of anxiety and depression on overall participation patterns. Grounded within International Classification of Functioning, Disability, and Health, this study examined 77 individuals with chronic stroke to determine the influence of depression, anxiety, and sense of coherence on activity and participation. Backward stepwise regression revealed that depression and anxiety were both independent predictors of activity and participation, but that sense of coherence did not predict either activity or participation. Implications for practice and research are provided.

Sources Used:
The following databases are used in the creation of this bulletin: Amed, Cinahl & Medline.

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