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Jason Ovens
Head of Library & Knowledge Services

Healthcare you can Trust
Title: Every interaction counts: The 'Bridges' approach to stroke self-management.

Citation: International Journal of Therapy & Rehabilitation. 01 April 2014, vol./is. 21/4(158-159), 17411645
Author(s): Jones, Fiona, Brimicombe, Lucinda

Full Text: Available from EBSCOhost in International Journal of Therapy & Rehabilitation

Title: Abnormalities of Motor Imagery and Relationship With Depressive Symptoms in Mildly Disabling Relapsing-Remitting Multiple Sclerosis.

Citation: Journal of Neurologic Physical Therapy, 01 April 2014, vol./is. 38/2(111-118), 15570576
Author(s): Tabrizi, Yousef Moghadas, Mazhari, Shahrzad, Nazari, Mohammad Ali, Zangiabadi, Nasser, Sheibani, Vahid

Title: Walking speed and health-related quality of life in multiple sclerosis.

Citation: The Patient: Patient-Centered Outcomes Research, March 2014, vol./is. 7/1(55-61), 1178-1653;1178-1661 (Mar 2014)
Author(s): Kohn, Christine G, Baker, William L, Sidovar, Matthew F, Coleman, Craig I

Abstract: Objective: The aim of this study was to evaluate the association between slower walking and health-related quality of life (HRQoL) in multiple sclerosis (MS) patients. Methods: We used North American Research Committee on Multiple Sclerosis data to conduct a study of participants completing both the regular semiannual and supplemental spring 2010 surveys. Question 10 of the 12-item Multiple Sclerosis Walking Scale ("How much has your MS slowed down your walking?") was used to assess patient-perceived impact of walking speed on HRQoL. HRQoL assessments included the Short Form-12 (SF-12), EuroQoL-5 Dimension (EQ-5D), Short Form-6 Dimension (SF-6D), and a visual analog scale (VAS). Results: A total of 3,670 registrants completed both surveys and were included. Unadjusted analyses showed that compared with those classifying the impact of MS on walking speed as "not at all" (n = 661), participants stating MS impacted their walking speed "a little" (n = 722), "moderately" (n = 486), "quite a bit" (n = 714), and "extremely" (n = 1,087) reported poorer SF-12 physical component scale (PCS) (r = -0.69, p < 0.001), mental component scale (MCS) (r = -0.16, p < 0.001), and health status index scores (r = -0.50 to -0.51 for the EQ-VAS, EQ-5D and SF-6D, p < 0.001 for all). After adjustment for demographics and additional MS-related disability and symptoms, the impact of walking speed remained significant, although less profound for the PCS (reductions of 3.59-12.31 across walking speed classifications) and index scores (reductions ranging from 1.98 to 14.06, 0.04 to 0.13, and 0.02 to 0.07 for the EQ-VAS, EQ-5D, and SF-6D). Reduction in walking speed was no longer associated with a worse MCS (p > 0.05 all classifications of walking speed). Conclusion: Incremental decrements in HRQoL were observed as patients perceived greater levels of reduction in their walking speed. (PsycINFO Database Record (c) 2014 APA, all rights reserved) (journal abstract)

Title: Muscle Pain Intensity and Pressure Pain Threshold Changes in Different Periods of Stroke Patients.

Citation: American Journal of Physical Medicine & Rehabilitation, 01 April 2014, vol./is. 93/4(299-309), 08949115
Author(s): Chu-Hsu Lin, Kai-Hua Chen, Chia-Hao Chang, Chien-Min Chen, Ying Chih Huang, Hung-Chih Hsu, Chang-Zern Hong

Abstract: Objective: This study aimed to investigate the role of muscle pain in post-stroke pain syndromes. Design: This cross-sectional-designed study enrolled 145 stroke patients at three different
stroke duration periods (≤3 mos, 3 mos to 1 yr, and >1 yr) receiving inpatient or outpatient rehabilitation programs in a regional teaching hospital. Three common muscle tender points (two at the upper trapezius and one at the brachioradialis) and two relative periosteum points of the healthy and hemiparetic sides were identified for evaluation. Spontaneous pain intensity measured with the verbally reported numerical rating scale and pressure pain threshold were assessed. Associations between variables were analyzed. Results: Among 145 subjects, 56 were women, and the mean ± SD age was 62.1 ± 13.2 yrs. The patients with stroke duration within 3 mos had the highest spontaneous muscle pain intensity and were most sensitive to pressure pain, with a prevalence of 48.3% of moderate to severe pain intensity (verbally reported numerical rating scale, 4-10) in the hemiparetic side. Spontaneous pain was more severe in the hemiparetic side than in the healthy side, but there were no obvious differences between the sides in the pressure pain threshold of the muscle or the periosteum. Conclusions: In stroke patients, spontaneous muscle pain in the hemiparetic side is a common finding. Bilaterally symmetric changes of pressure pain threshold are probably caused by central sensitization mechanisms.

Title: Rethinking the Continuum of Stroke Rehabilitation.

Citation: Archives of Physical Medicine & Rehabilitation, 01 April 2014, vol./is. 95/4(595-596), 00039993
Author(s): Teasell, Robert W., Murie Fernandez, Manuel, McIntyre, Amanda, Mehta, Swati

Abstract: Abstract: Suffering a stroke can be a devastating and life-changing event. Although there is a large evidence base for stroke rehabilitation in the acute and subacute stages, it has been long accepted that patients with stroke reach a plateau in their rehabilitation recovery relatively early. We have recently published the results of a systematic review designed to identify all randomized controlled trials (RCTs) where a rehabilitation intervention was initiated more than 6 months after the onset of the stroke. Of the trials identified, 339 RCTs met inclusion criteria, demonstrating an evidence base for stroke rehabilitation in the chronic phase as well. This seems at odds with the assumption that further recovery is unlikely and the subsequent lack of resources devoted to chronic stroke rehabilitation and management.

Title: Interdisciplinary Cardiovascular and Neurologic Outpatient Rehabilitation in Patients Surviving Transient Ischemic Attack or Stroke With Minor or No Residual Deficits.

Citation: Archives of Physical Medicine & Rehabilitation, 01 April 2014, vol./is. 95/4(656-662), 00039993
Author(s): Kamm, Christian P., Schmid, Jean-Paul, Mä̈tri, Renä̈© M., Mattle, Heinrich P., Eser, Prisca, Saner, Hugo

Abstract: Abstract: Objective: To evaluate the feasibility and effectiveness of a comprehensive outpatient rehabilitation program combining secondary prevention and neurorehabilitation to improve vascular risk factors, neurologic functions, and health-related quality of life (HRQOL) in patients surviving a transient ischemic attack (TIA) or stroke with minor or no residual deficits. Design: Prospective interventional single-center cohort study. Setting: University hospital. Participants: Consecutive consenting patients having sustained a TIA or stroke with 1 or more vascular risk factors (N=105) were included. Interventions: Three-month hospital-based secondary prevention and neurorehabilitation outpatient program with therapeutic and educational sessions twice a week. Patients were evaluated at entry and program end. Main Outcome Measures: Impact on vascular risk factors, neurological outcome, and HRQOL. Results: A total of 105 patients entered the program and 95 patients completed it. Exercise capacity (P<.000), smoking status (P=.001), systolic (P=.015) and diastolic (P=.008) blood pressure, body mass index (P=.005), low-density lipoprotein cholesterol (P=.03), and triglycerides (P=.001) improved significantly. Furthermore, the 9-Hole-Peg-Test (P<.000), Six-minute Walking Test (P<.000), and One Leg Stand Test (P<.011) values as well as HRQOL improved significantly. The program could be easily integrated into an existing cardiovascular prevention and rehabilitation center and was feasible and highly accepted by patients. Conclusions: Comprehensive combined cardiovascular and neurologic outpatient rehabilitation is feasible and effective to improve vascular risk factors, neurologic functions, and HRQOL in patients surviving TIA or stroke with minor or no residual deficits.
Title: Proactive Coping Poststroke: Psychometric Properties of the Utrecht Proactive Coping Competence Scale.

Citation: Archives of Physical Medicine & Rehabilitation, 01 April 2014, vol./is. 95/4(670-675), 00039993
Author(s): Tielemans, Nienke S., Visser-Meily, Johanna M., Schepers, Vera P., Post, Marcel W., van Heugten, Caroline M.

Abstract: Abstract: Objective: To examine psychometric properties of the Utrecht Proactive Coping Competence scale (UPCC) and explore relations of proactive coping with health-related quality of life (HRQOL) and characteristics of patients with stroke. Design: Cross-sectional study. Reliability and convergent validity, and associations with HRQOL and characteristics of patients with stroke were examined. Setting: Inpatient and outpatient settings of hospitals and rehabilitation centers in The Netherlands. Participants: Patients with stroke (N=55; mean age, 58.7±12.8y; mean months since stroke, 25.0±38.5). Interventions: Not applicable. Main Outcome Measures: UPCC, Utrecht Coping List (UCL), and the short Stroke Specific Quality of Life scale (SS-QOL-12). Results: The UPCC showed excellent reliability (Cronbach's α=.95) without floor/ceiling effects or skewed score distribution. Convergent validity was shown by moderate positive relations with the UCL subscale active problem solving (r=.38) and moderate negative relations with the UCL subscales passive reactions (r=−.50), avoidance (r=−.40), and expression of emotions (r=−.42). Correlations between the UPCC and HRQOL domains were moderate to strong (r=.48−.61) and stronger than those between UCL subscales and HRQOL domains. The only characteristic of patients with stroke associated with proactive coping was time after stroke (r=−.52). Conclusions: The UPCC appears reliable and valid for patients with stroke. Moreover, we found positive associations between proactive coping and HRQOL. Future research is recommended to confirm our results and to explore ways to enhance proactive coping in patients with stroke.

Title: Clinical and Neuropsychological Long-Term Outcomes After Late Recovery of Responsiveness: A Case Series.

Citation: Archives of Physical Medicine & Rehabilitation, 01 April 2014, vol./is. 95/4(711-716), 00039993
Author(s): Estraneo, Anna, Moretta, Pasquale, Loreto, Vincenzo, Santoro, Lucio, Trojano, Luigi

Abstract: Abstract: Objective: To report clinical conditions and neuropsychological functioning of patients with late recovery of responsiveness at least 5 years after injury. Design: Patient series. Setting: Patients discharged from an inpatient rehabilitation unit. Participants: Patients (N=13) who recovered from a vegetative state 1 year after severe traumatic brain injury or 6 months after nontraumatic brain injury. Interventions: Not applicable. Main Outcome Measures: Coma Recovery Scale-Revised, Disability Rating Scale, and FIM. For patients who recovered full consciousness, neuropsychological tests specifically adapted for patients with very severe disabilities were used. Results: After regaining responsiveness, 2 patients died because of severe clinical complications. Among the remaining 11 patients, 5 were still in a minimally conscious state at their last assessment, but 4 of them had recovered some complex behavioral responses to the environment (eg, they could follow simple commands, albeit inconsistently). Six patients had emerged from a minimally conscious state at the last evaluation. Severe functional disability was present in both patients who were conscious and patients who were minimally conscious. No patient was autonomous in common daily life activities or in transfers. All patients who were conscious showed variable cognitive impairments, and some of them also developed behavioral and psychological symptoms. However, such disturbances did not impede the patients' interaction with relatives and caregivers. Conclusions: This study provides systematic data about the course of the disease in a cohort of patients that was previously considered as exceptional. Patients with late recovery show a variable degree of functional recovery, although they experience marked residual motor and cognitive disabilities. The present findings contribute to enhance the understanding of the course of the disease in patients with late recovery and might help clinicians optimize the levels of care and provide the patients' families with correct information.

Citation: Archives of Physical Medicine & Rehabilitation, 01 April 2014, vol./is. 95/4(741-746), 00039993
Author(s): Kuys, Suzanne S., Bew, Paul G., Lynch, Mary R., Brauer, Sandra G.

Abstract: Abstract: Objective: To determine whether there were differences in characteristics and activity limitations relevant to physiotherapists among people receiving inpatient rehabilitation after stroke in 2001, 2005, and 2011. Design: A multicenter observational study of 3 periods. Setting: Inpatient rehabilitation units (N=15). Participants: Adult stroke survivors (N=738) admitted over 3 periods (2001, 2005, 2011). Interventions: Not applicable. Main Outcome Measures: Characteristics, hospital metrics, and Motor Assessment Scale (MAS) scores were recorded on admission and discharge. Results: All 3 cohorts were similar in terms of sex, side affected by stroke, and length of time from stroke onset to rehabilitation admission. Stroke participants in the 2005 cohort were older than those in the 2011 and 2001 cohorts. Participants in the 2011 cohort had a longer inpatient rehabilitation length of stay, experienced lower average MAS gains per day (F>3.298, P<.038), and experienced more activity limitations in basic functional tasks involving bed mobility, standing up, and sitting balance on admission and discharge, and in walking and arm function at discharge only compared with earlier cohorts. Conclusions: In 2011, on average, people admitted for rehabilitation after stroke were approximately the same age as patients in 2005 and 2001 and it took approximately 2 weeks for all of these patients to be admitted to a rehabilitation unit, but patients in 2011 had a longer inpatient rehabilitation length of stay compared with patients in 2005 and 2001. In addition, activity limitations at inpatient rehabilitation admission and discharge appear to be worse, particularly for activities such as rolling, sitting up over the edge of the bed, and balanced sitting.

Title: Can a Prediction Model Combining Self-Reported Symptoms, Sociodemographic and Clinical Features Serve as a Reliable First Screening Method for Sleep Apnea Syndrome in Patients With Stroke?

Citation: Archives of Physical Medicine & Rehabilitation, 01 April 2014, vol./is. 95/4(747-752), 00039993
Author(s): Aaronson, Justine A., Nachtegaal, Janneke, van Beezij, Tijs, Groet, Erny, Hofman, Winni F., van den Aardweg, Joost G., van Bennekom, Coen A.M.

Abstract: Abstract: Objective: To determine whether a prediction model combining self-reported symptoms, sociodemographic and clinical parameters could serve as a reliable first screening method in a step-by-step diagnostic approach to sleep apnea syndrome (SAS) in stroke rehabilitation. Design: Retrospective study. Setting: Rehabilitation center. Participants: Consecutive sample of patients with stroke (N=620) admitted between May 2007 and July 2012. Of these, 533 patients underwent SAS screening. In total, 438 patients met the inclusion and exclusion criteria. Interventions: Not applicable. Main Outcome Measures: We administered an SAS questionnaire consisting of self-reported symptoms and sociodemographic and clinical parameters. We performed nocturnal oximetry to determine the oxygen desaturation index (ODI). We classified patients with an ODI ≥15 as having a high likelihood of SAS. We built a prediction model using backward multivariate logistic regression and evaluated diagnostic accuracy using receiver operating characteristic analysis. We calculated sensitivity, specificity, and predictive values for different probability cutoffs. Results: Thirty-one percent of patients had a high likelihood of SAS. The prediction model consisted of the following variables: sex, age, body mass index, and self-reported apneas and falling asleep during daytime. The diagnostic accuracy was .76. Using a low probability cutoff (0.1), the model was very sensitive (95%) but not specific (21%). At a high cutoff (0.6), the specificity increased to 97%, but the sensitivity dropped to 24%. A cutoff of 0.3 yielded almost equal sensitivity and specificity of 72% and 69%, respectively. Depending on the cutoff, positive predictive values ranged from 35% to 75%. Conclusions: The prediction model shows acceptable diagnostic accuracy for a high likelihood of SAS. Therefore, we conclude that the prediction model can serve as a reasonable first screening method in a stepped diagnostic approach to SAS in stroke rehabilitation.
Title: Meta-analysis on the effect of mental imagery on motor recovery of the hemiplegic upper extremity function.

Citation: Australian Occupational Therapy Journal, 01 April 2014, vol./is. 61/2(38-48), 00450766
Author(s): Kho, Adeline Y., Liu, Karen P. Y., Chung, Raymond C. K.

Abstract: Background/aim Studies have shown that mental imagery can enhance relearning and generalisation of function after stroke. The aim of this meta-analysis was to evaluate evidence on the effects of mental imagery on motor recovery of the hemiplegic upper extremities after stroke. Methods A comprehensive data base search of the literature up to December 2012 was performed using PubMed, EBSCO host (Academic Search Premier, CINAHL and Educational Resource Information Center), PsycINFO, Medline, and ISI Web of Knowledge (Science Citation Index and Social Sciences Citation Index). Randomised clinical trials or controlled clinical trials that included mental imagery for improving upper extremity motor function for stroke patients were located. Relevant articles were critically reviewed and methodological quality was evaluated using the PEDro Scale, and study results synthesised. Results Five randomised clinical trials and one controlled clinical trial met the inclusion criteria. Five of the six studies yielded positive findings in favour of mental imagery. Quantitative analysis showed a significant difference in the Action Research Arm Test (overall effect: $Z = 6.75$; $P << 0.001$). Conclusion Review of the literature revealed a trend in support of the use of motor imagery for upper extremity motor rehabilitation after stroke. Mental imagery could be a viable intervention for stroke patients given its benefits of being safe, cost-effective and rendering multiple and unlimited practice opportunities. It is recommended that researchers incorporate imaging techniques into clinical studies so that the mechanism whereby mental imagery mediates motor recovery or neural adaptation for people with stroke can be better understood.

Title: Development of a model for organisation of and cooperation on home-based rehabilitation - an action research project.

Citation: Disability & Rehabilitation, 01 April 2014, vol./is. 36/7(608-616), 09638288
Author(s): Steinhaug, Sissel, Lippestad, Jan-W., Isaksen, Hanne, Werner, Anne

Abstract: Purpose: To use general policy guidelines and staff experience of rehabilitation work in two boroughs in Oslo to develop a model for organisation and cooperation in home-based rehabilitation. Method: The project was conducted as a collaboration between researchers and employees in the two boroughs. It was a practice-oriented study designed as an action research project combining knowledge generation and improvement of practice. Data were collected at seven meetings, and individual, qualitative interviews with a total of 24 persons were conducted in the period February 2010 to June 2011. Results: Home-based rehabilitation occurred rarely in the boroughs, and this field received little attention. However, this project provided a broad discussion of rehabilitation involving all parts of the organisation of both boroughs. In the course of the project, researchers and borough staff together developed a model for the organisation of and cooperation on rehabilitation including a coordinating unit assigned the paramount responsibility for the rehabilitation and an interdisciplinary team organising the collaboration on the practical level. Conclusions: When implementing a model like this in primary health services, we recommend involving several levels and service locations of the borough staff in order to legitimise the model in the organisation.

Title: Effect of Transcranial Direct Current Stimulation of Function in Patients with Stroke.

Citation: Journal of Physical Therapy Science, 01 March 2014, vol./is. 26/3(363-365), 09155287
Author(s): Hyun-Kyu Cha, Sang-Goo Ji, Myoung-Kwon Kim, Jong-Sung Chang

Abstract: [Purpose] The purpose of this study was to determine the effect of transcranial direct current stimulation (tDCS) on the upper limb of function of patients with post-stroke hemiplegia. [Subjects] Twenty subjects were randomly allocated to either the upper tDCS group or the functional training group, with 10 subjects in each group. [Methods] The two groups received functional training for thirty minutes a day, five days a week for four weeks. The tDCS group additionally received tDCS for 20 minutes. The outcome was assessed by the Box and Block test (BBT), grip strength, and the Fugl-Meyer assessment (FMA). [Results]
There were significant improvements between pre- and post- intervention in both groups, in the BBT, grip strength, and the upper limb and lower limbs subitems of the FMA. The tDCS group showed significantly greater improvements than the control group in the BBT, and upper limb and lower limb sub-items of the FMA. [Conclusion] These findings suggest that tDCS may be more beneficial than functional training for improving the upper and lower limb functions of chronic stroke patients.

Title: The Effect of Obstacle Training in Water on Static Balance of Chronic Stroke Patients.

Citation: Journal of Physical Therapy Science, 01 March 2014, vol./is. 26/3(437-440), 09155287
Author(s): Jaehyun Jung, Jiyeun Lee, Eunjung Chung, Kyoung Kim

Abstract: [Purpose] This study evaluated the effects of water and land-based obstacle training on static balance of chronic stroke patients. [Subjects] The subjects were randomly allocated to an aqua group (n=15) and a land group (n=15). [Methods] Both groups trained for 40 minutes, 3 times a week for 12 weeks. Static balance was assessed by measuring the mean velocities of mediolateral (ML) and anteroposterior (AP), and sway area with the eyes closed. [Results] Following the intervention, both groups showed significant changes in ML velocity, AP velocity, and sway area. The static balance of the aqua group was significantly better than the land group. [Conclusion] The results of this study suggest the feasibility and suitability of obstacle training in water for stroke patients.

Title: Anxiety, apathy and depression in first-time stroke survivors with aphasia in the post-stroke period.

Citation: Dissertation Abstracts International: Section B: The Sciences and Engineering, 2014, vol./is. 74/9-B(E)(No Pagination Specified), 0419-4217 (2014)
Author(s): Jackson, Maranda Christine

Abstract: Emotional disorders specifically, anxiety, apathy and depression, in the post-stroke period are prevalent, long lasting and detrimental. Aphasia, an acquired communication disorder, is experienced by 40% of all stroke survivors. As the leading cause for disability, stroke affects multiple aspects of the stroke survivors life. Moreover, physical disability, social isolation, and emotional distress further complicate stroke rehabilitation compromising recovery and increasing mortality. Seventy-one percent of stroke studies exclude stroke survivors with aphasia. Thus, the impact of emotional distress in aphasic stroke survivors remains a gap within the stroke literature. This study examined emotional distress in first-time stroke survivors with aphasia in the post-stroke period. A descriptive, cross-sectional study design using non-probability sampling was used. Participants were recruited from rehabilitation hospitals, the community and a stroke database. Using primary data collection a sample size of 16 stroke survivors was obtained. A battery of instruments assessing aphasia, physiological, sociological, and neuropsychological aspects of stroke recovery were administered in a 2-hour interview session. Within this sample of stroke survivors with aphasia, 68.8% reported anxiety, 100% reported apathy, and 43.8% reported depression. With the majority of the population reporting apathy mixed disorders were identified. Sixty-eight percent of stroke survivors screened for anxiety and apathy and 66.7% reported depression and apathy. The mean stroke severity score was 2.2. Forty-three percent were functionally independent, 93.8% had below average neuropsychological scores, and 62.5% had left hemisphere lesions. Ethnicity and gender was associated with depression. Chi square analysis (p = .041, Fishers exact test) and Mann Whitney U associate non-blacks (n = 8, Mdn = 6.0) with higher depression scores than blacks (n = 8, Mdn=2.5) (U = 12.000, z = -2.11, p = .03). Emotional distress is a pervasive in stroke survivors with aphasia. Thoughtful selection of instruments modified for this stroke population may effectively detect post-stroke emotions. Despite the small sample size, this study contributes to the body of research by screening for social isolation, apathy, and neuropsychological status within this stroke sub-population. Going forward, incorporation of social, neuropsychological and psychological screening as standard of care in facilities serving the stroke population, will improve stroke outcomes in the stroke survivor with aphasia. (PsycINFO Database Record (c) 2014 APA, all rights reserved)
Title: Prevalence and risk factors for suicidal ideation in a multiple sclerosis population.

Citation: Journal of Psychosomatic Research, April 2014, vol./is. 76/4(312-316), 0022-3999 (Apr 2014)
Author(s): Viner, Rebecca, Patten, Scott B, Berzins, Sandra, Bulloch, Andrew G. M, Fiest, Kirsten M

Abstract: Objective: To estimate the prevalence, incidence and determinants of suicidal ideation in the multiple sclerosis (MS) population. Methods: A sample of 188 subjects were randomly selected from a community-based MS clinic registry and participated in as many as 13 interviews over 6 months. Thoughts of "being better off dead" or of "harming oneself" were assessed using item 9 on the Patient Health Questionnaire, Brief (PHQ-9). Results: At baseline, the 2-week period prevalence of suicidal ideation was 8.3%. Over the course of 6 months, 22.1% of respondents reported having such thoughts at least once. Survival analysis incorporating baseline PHQ-8 scores as a covariate confirmed that being age 65 and over (HR = 4.3, 95% CI 1.7-11.3) and having lower quartile self-efficacy ratings (HR = 3.5, 95% CI 1.5-8.2) predicted suicidal ideation. Lower levels of task-oriented coping (treated as a continuous variable) also predicted suicidal ideation after adjustment for depressive symptoms (p = 0.015), as did self-reported bladder or bowel symptoms (HR = 2.6, 95% CI 1.1-6.0) and difficulties with speaking and swallowing (HR = 2.9, 95% CI 1.3-6.8). Associations with MS symptoms were not confounded by depressive symptoms. Conclusion: This study identified several potentially modifiable factors that may be useful for preventing suicide in people with MS. (PsycINFO Database Record (c) 2014 APA, all rights reserved) (journal abstract)

Title: Effects of Repetitive Transcranial Magnetic Stimulation on Hand Function Recovery and Excitability of the Motor Cortex After Stroke.

Citation: American Journal of Physical Medicine & Rehabilitation, 01 May 2014, vol./is. 93/5(422-430), 08949115
Author(s): Qu Le, Yun Qu, Yingxia Tao, Shoujuan Zhu

Abstract: Objective: The purpose of this article was to investigate the effects of repetitive transcranial magnetic stimulation (rTMS) on hand function recovery and the plasticity of the cortex in stroke patients. Design: A search was conducted in electronic databases for randomized controlled trials exploring the effects of rTMS on hand motor function rehabilitation published from 1990 to January 30, 2012. The authors summarized the effect size on finger coordination, hand function, cortical excitability, and activities of daily living by calculating the standardized mean difference. Adverse effects were also discussed. Results: Of 1 668 articles identified, 8 articles (N= 273) were included in this study. The summary effect size indicated positive effects of rTMS on finger motor ability (standardized mean difference, 0.58) and hand function (standardized mean difference, -0.82). However, this study showed that the changes of neurophysiologic measurements were not significant in the included studies. Even so, the trend of these changes was positive. Few adverse events were observed. Conclusions: rTMS can improve patients' recovery after stroke. The authors suggest that future trials can concentrate on the effects of rTMS for different types of stroke patients in response to stimulation at different sites and explore optimal rTMS parameters for individual treatment.

Title: Robotic Resistance/Assistance Training Improves Locomotor Function in Individuals Poststroke: A Randomized Controlled Study.

Citation: Archives of Physical Medicine & Rehabilitation, 01 May 2014, vol./is. 95/5(799-806), 00039993
Author(s): Wu, Ming, Landry, Jill M., Kim, Janis, Schmit, Brian D., Yen, Sheng-Che, MacDonald, Jillian

Abstract: Objective: To determine whether providing a controlled resistance versus assistance to the paretic leg at the ankle during treadmill training will improve walking function in individuals poststroke. Design: Repeated assessment of the same patients with parallel design and randomized controlled study between 2 groups. Setting: Research units of rehabilitation hospitals. Participants: Patients (N=30) with chronic stroke. Intervention: Subjects were stratified based on self-selected walking speed and were randomly assigned to the resistance or assistance training group. For the resistance group, a controlled resistance load was applied to the paretic leg at the ankle to resist leg swing during treadmill walking. For
the assistance group, a load that assists swing was applied. Main Outcome Measures: Primary outcome measures were walking speed and 6-minute walking distance. Secondary measures included clinical assessments of balance, muscle tone, and quality of life. Outcome measures were evaluated before and after 6 weeks of training and at 8 weeks' follow-up, and compared within group and between the 2 groups. Results: After 6 weeks of robotic training, walking speed significantly increased for both groups, with no significant differences in walking speed gains observed between the 2 groups. In addition, 6-minute walking distance and balance significantly improved for the assistance group but not for the resistance group. Conclusions: Applying a controlled resistance or an assistance load to the paretic leg during treadmill training may induce improvements in walking speed in individuals poststroke. Resistance training was not superior to assistance training in improving locomotor function in individuals poststroke.

Title: Effect of Tai Chi on Physical Function, Fall Rates and Quality of Life Among Older Stroke Survivors.

Citation: Archives of Physical Medicine & Rehabilitation, 01 May 2014, vol./is. 95/5(816-824), 00039993

Author(s): Taylor-Piliae, Ruth E., Hoke, Tiffany M., Hepworth, Joseph T., Latt, L. Daniel, Najafi, Bijan, Coull, Bruce M.

Abstract: Abstract: Objective: To examine the effect of a 12-week Tai Chi (TC) intervention on physical function and quality of life. Design: Single-blind, randomized controlled trial. Setting: General community. Participants: Community-dwelling survivors of stroke (N=145; 47% women; mean age, 70y; time poststroke: 3y; ischemic stroke: 66%; hemiparesis: 73%) who were aged ≥50 years and were ≥3 months poststroke. Interventions: Yang style 24-posture short-form TC (n=53), strength and range of movement exercises (SS) (n=44), or usual care (UC) (n=48) for 12 weeks. The TC and SS groups attended a 1-hour class 3 times per week, whereas the UC group had weekly phone calls. Main Outcome Measures: Physical function: Short Physical Performance Battery, fall rates, and 2-minute step test; quality of life: Medical Outcomes Study 36-Item Short-Form Health Survey, Center for Epidemiologic Studies Depression Scale, and Pittsburgh Sleep Quality Index. Results: During the intervention, TC participants had two thirds fewer falls (5 falls) than the SS (14 falls) and UC (15 falls) groups (x<sup>2</sup>=5.6, P=.06). There was a significant group by time interaction for the 2-minute step test (F<sub>2,142</sub>=4.69, P<.01). Post hoc tests indicated that the TC (t<sub>53</sub>=2.45, P=.02) and SS (t<sub>44</sub>=4.63, P<.01) groups had significantly better aerobic endurance over time, though not in the UC group (t<sub>48</sub>=1.58, P=.12). Intervention adherence rates were 85%. Conclusions: TC and SS led to improved aerobic endurance, and both are suitable community-based programs that may aid in stroke recovery and community reintegration. Our data suggest that a 12-week TC intervention was more effective in reducing fall rates than SS or UC interventions. Future studies examining the effectiveness of TC as a fall prevention strategy for community-dwelling survivors of stroke are recommended.

Title: Feasibility of Computerized Adaptive Testing for Collection of Patient-Reported Outcomes After Inpatient Rehabilitation.

Citation: Archives of Physical Medicine & Rehabilitation, 01 May 2014, vol./is. 95/5(882-891), 00039993

Author(s): Wong, Alex W.K., Heinemann, Allen W., Miskovic, Ana, Semik, Patrick, Snyder, Thomas M.

Abstract: Abstract: Objective: To evaluate the feasibility of computer adaptive testing (CAT) using an Internet or telephone interface to collect patient-reported outcomes after inpatient rehabilitation and to examine patient characteristics associated with completion of the CAT-administered measure and mode of administration. Design: Prospective cohort study of patients contacted approximately 4 weeks after discharge from inpatient rehabilitation. Patients selected an Internet or telephone interface. Setting: Rehabilitation hospital. Participants: Patients (N=674) with diagnoses of neurologic, orthopedic, or medically complex conditions. Interventions: None. Main Outcome Measure: CAT version of the Community Participation Indicators (CAT-CPI). Results: From an eligible pool of 3221 patients, 674 (21%) agreed to complete the CAT-CPI. Patients who agreed to complete the CAT-CPI were younger and reported slightly higher satisfaction with overall care than those who did not participate. Among these patients, 231 (34%) actually completed the CAT-CPI; 141 (61%) selected telephone administration, and 90 (39%) selected Internet administration. Decreased odds of completing the CAT-CPI were associated with black and other race; stroke, brain injury, or orthopedic and other impairments; and being a Medicaid
beneficiary, whereas increased odds of completing the CAT-CPI were associated with longer length of stay and higher discharge FIM cognition measure. Decreased odds of choosing Internet administration were associated with younger age, retirement status, and being a woman, whereas increased odds of choosing Internet administration were associated with higher discharge FIM motor measure. Conclusions: CAT administration by Internet and telephone has limited feasibility for collecting postrehabilitation outcomes for most rehabilitation patients, but it is feasible for a subset of patients. Providing alternative ways of answering questions helps assure that a larger proportion of patients will respond.

Title: Self-Perceived Utilization of the Paretic Arm in Chronic Stroke Requires High Upper Limb Functional Ability.

Citation: Archives of Physical Medicine & Rehabilitation, 01 May 2014, vol./is. 95/5(918-924), 00039993
Author(s): Fleming, Melanie K., Newham, Di J., Roberts-Lewis, Sarah F., Sorinola, Isaac O.

Abstract: Objective: To explore potential predictors of self-reported paretic arm use at baseline and after task-specific training (TST) in survivors of stroke. Design: Data were obtained from a randomized controlled trial of somatosensory stimulation and upper limb TST in chronic stroke. Setting: University laboratory. Participants: Chronic (≥3mo) survivors of stroke (N=33; mean age, 62y; mean stroke duration, 38mo). Interventions: Participants received 12 sessions of TST preceded by either active (n=16) or sham (n=17) somatosensory stimulation to all 3 peripheral nerves. Main Outcome Measures: Demographic and clinical characteristics were entered stepwise into multiple linear regression analyses to determine the factors that best predict baseline Motor Activity Log (MAL) amount of use rating and change 3 months after TST. Results: The Action Research Arm Test (ARAT) score predicted the amount of use at baseline (R^2=.47, P<.001); in using this model, an ARAT score of 54 (maximum of 57) is required to score 2.5 on the MAL (use described as between rarely and sometimes). After TST the change in the ARAT score predicted the change in the amount of use (R^2=.31, P=.001). The predictive power of the model for change at 3 months increased if the Fugl-Meyer Assessment wrist component score was added (R^2=.41, P=.001). Conclusions: Utilization of the paretic upper limb in activities of daily living requires high functional ability. The increase in self-reported arm use after TST is dependent on the change in functional ability. These results provide further guidance for rehabilitation decisions.

Title: Assistive Technologies: Can They Contribute to Rehabilitation of the Upper Limb After Stroke?

Citation: Archives of Physical Medicine & Rehabilitation, 01 May 2014, vol./is. 95/5(968-985), 00039993
Author(s): Farmer, Sybil Eleanor, Durairaj, Venugopal, Swain, Ian, Pandyan, Anand David

Abstract: Objective: To systematically identify, review, and explore the evidence for use of assistive technologies (ATs) in poststroke upper limb rehabilitation. Data Sources: AMED, CINAHL, Cochrane Library, Compendex, CSA Illumina, EMBASE, MEDLINE, PEDro, PsyCINFO, and Web of Science were last searched in September 2011. Study Selection: Two independent researchers screened for inclusion criteria (adult poststroke subjects, upper limb rehabilitation with an AT). The risk of bias was assessed. Randomized controlled trials of poststroke subjects with baseline equivalence as assessed by blinded assessors were selected for data extraction. Data Extraction: Details of subjects, experimental and control treatments, and all outcomes were recorded in a spreadsheet. Data Synthesis: These data were used to calculate effect sizes for all outcome measures. Impairment measures ranged from −.39 (95% confidence interval [CI], −1.14 to .62) to 1.46 (95% CI, .72–2.20). Measures of activity effect sizes were from .04 (95% CI, −.35 to .44) to .93 (95% CI, −.39 to 2.25); for Motor Activity Log, from .07 (95% CI, −.66 to .80) to 1.24 (95% CI, .47–2.01); and for participation, from −3.32 (95% CI, −4.52 to 2.11) to 1.78 (95% CI, 0–3.56). Conclusions: AT treatments appear to give modest additional benefit when compared with usual care or in addition to usual care. This is most apparent for subjects early poststroke with 2 caveats: high-intensity constraint-induced movement therapy and electrical stimulation exclusively to the shoulder appear detrimental. The heterogeneity of treatment parameters and population characteristics precludes specific recommendations. Research would benefit from modeling studies to explicitly define criteria of population, intervention, comparator, and outcomes for effective treatments before the development of efficiently integrated care pathways.
Title: Impact of Physical Exercise on Reaction Time in Patients With Parkinson's Disease—Data From the Berlin BIG Study.

Citation: Archives of Physical Medicine & Rehabilitation, 01 May 2014, vol./is. 95/5(996-999), 00039993
Author(s): Ebersbach, Georg, Ebersbach, Almut, Gandor, Florin, Wegner, Brigitte, Wissel, Jörg, Kupsch, Andreas

Abstract: Abstract: Objective: To determine whether physical activity may affect cognitive performance in patients with Parkinson's disease by measuring reaction times in patients participating in the Berlin BIG study. Design: Randomized controlled trial, rater-blinded. Setting: Ambulatory care. Participants: Patients with mild to moderate Parkinson's disease (N=60) were randomly allocated to 3 treatment arms. Outcome was measured at the termination of training and at follow-up 16 weeks after baseline in 58 patients (completers). Interventions: Patients received 16 hours of individual Lee Silverman Voice Treatment-BIG training (BIG; duration of treatment, 4wk), 16 hours of group training with Nordic Walking (WALK; duration of treatment, 8wk), or nonsupervised domestic exercise (HOME; duration of instruction, 1hr). Main Outcome Measures: Cued reaction time (cRT) and noncued reaction time (nRT). Results: Differences between treatment groups in improvement in reaction times from baseline to intermediate and baseline to follow-up assessments were observed for cRT but not for nRT. Pairwise t test comparisons revealed differences in change in cRT at both measurements between BIG and HOME groups (intermediate: −52ms; 95% confidence interval [CI], −84/−20; P=.002; follow-up: 55ms; CI, −105/−6; P=.030) and between WALK and HOME groups (intermediate: −61ms; CI, −120/−2; P=.042; follow-up: −78ms; CI, −136/−20; P=.010). There was no difference between BIG and WALK groups (intermediate: 9ms; CI, −49/67; P=.742; follow-up: 23ms; CI, −27/72; P=.361). Conclusion: Supervised physical exercise with Lee Silverman Voice Treatment-BIG or Nordic Walking is associated with improvement in cognitive aspects of movement preparation.

Title: Is Highly Challenging and Progressive Balance Training Feasible in Older Adults With Parkinson's Disease?

Citation: Archives of Physical Medicine & Rehabilitation, 01 May 2014, vol./is. 95/5(1000-1003), 00039993
Author(s): Conradsson, David, Löfgren, Niklas, Ståhle, Agneta, Franzén, Erika

Abstract: Abstract: Objective: To develop a highly challenging and progressive group balance training regime specific to Parkinson's disease (PD) symptoms and to investigate its feasibility in older adults with mild to moderate PD. Design: Intervention study, before-after trial with a development and feasibility design. Setting: University hospital setting. Participants: Feasibility was evaluated in older adults (N=5; mean age, 72y; age range, 69–80y) with mild to moderate idiopathic PD. Intervention: A balance training regime emphasizing specific and highly challenging exercises, performed 3 times per week for 12 weeks, was developed through discussion and workshops by a group of researchers and physiotherapists. Main Outcome Measures: Indicators of feasibility included attendance rate, safety (adverse events, physical function, and pain), participants' perceptions of the intervention (level of difficulty of the exercises, motivation level, and appreciation), and efficacy of the intervention (balance performance assessed with the Mini-Balance Evaluation Systems Test [Mini-BESTest]). Results: The incidence rate was high (93%) for attendance and low (1.2%) for adverse events. Ratings by the participants indicated progression throughout the training period. All participants considered the training motivational and stated that they would recommend it to others. The efficacy of the intervention measured with the Mini-BESTest showed that 4 out of 5 participants improved their balance performance. Conclusions: These findings support the overall feasibility of this novel balance program in older adults with mild to moderate PD. However, to further evaluate the efficacy of the program,

Title: Mirrored Feedback in Chronic Stroke: Recruitment and Effective Connectivity of Ipsilesional Sensorimotor Networks.

Citation: Neurorehabilitation & Neural Repair, 01 May 2014, vol./is. 28/4(344-354), 15459683
Author(s): Saleh, Soha, Adamovich, Sergei V., Tunik, Eugene
Title: Randomized Trial of a Robotic Assistive Device for the Upper Extremity During Early Inpatient Stroke Rehabilitation.

Citation: Neurorehabilitation & Neural Repair, 01 May 2014, vol./is. 28/4(377-386), 15459683
Author(s): Masiero, Stefano, Armani, Mario, Ferlini, Gregorio, Rosati, Giulio, Rossi, Aldo

Title: Evidence for Interventions Neurodegenerative Diseases.

Citation: OT Practice, 14 April 2014, vol./is. 19/6(20-20), 10844902
Author(s): Lin, Susan H.

Full Text: Available from ProQuest in OT Practice

Title: Current uses of botulinum toxin A as an adjunct to hand therapy interventions of hand conditions.

Citation: Journal of Hand Therapy, 01 April 2014, vol./is. 27/2(85-95), 08941130
Author(s): Kalliainen, Loree K., O'Brien, Virginia H.

Abstract: Discussion: Botulinum toxin A, a neurotoxin causing temporary muscle paralysis at the neuromuscular junction, has been used to treat multiple acquired conditions of the hand and upper extremity. Initially approved for use in treating blepharospasm and strabismus in the 1980s, indications have expanded to include spasticity associated with cerebrovascular accidents, vasospastic disorders, focal dystonias, and pain conditions. This article reviews the current literature discussing the efficacy of botulinum toxin A in management of disorders of the hand and upper extremity relevant to hand therapists.

Full Text: Available from ProQuest in Journal of Hand Therapy

Title: A preliminary investigation of error enhancement of the velocity component in stroke patients’ reaching movements.

Citation: International Journal of Therapy & Rehabilitation, 01 April 2014, vol./is. 21/4(160-168), 17411645
Author(s): Givon-Mayo, Ronit, Simons, Esther, Ohry, Avi, Karpin, Hana, Israely, Sharon, Carmeli, Eli

Abstract: Background/aim: Patients with stroke who are suffering from impaired reaching movement experience insufficient spatial and temporal coordination, affecting upper limb functions and everyday life tasks. This study examines a new robot-assisted rehabilitation method for ameliorating arm reaching movements through velocity error enhancement training. The authors hypothesised that this robot-assisted rehabilitation training may encourage restoration of arm reaching abilities among poststroke hemiparesis patients. Methods: Several clinical and kinematic measures were used to evaluate outcomes. Subjects were assigned either to an experimental group that underwent 5-week treatments with error enhanced forces, or to a control group that received passive treatment. The control group undertook reaching tasks over the same period while they were connected to the robot but without it applying any error enhancement forces to their upper limb. The robotic system was programmed based on previous kinematic data from healthy subjects, so any deviation from the relatively smooth, calculated, optimal trajectory, and velocity profile mean encountered error enhancing external forces. Results: The results showed an appreciable effect on smoothness and regularity of movement. After 5 weeks of velocity error enhancement treatment, all subjects in the experimental group displayed movements converging towards their optimal profiles, together with decreased variability in path trajectory. In contrast to the control group, their mean deviation was also significantly reduced. These positive changes in motor control patterns were paralleled by gains in functional capacity, as reflected by the Motor Assessment Scale test results. However, those results should be carefully inspected in regard to small sample size and un-matching of motor performance at the beginning of the trial between groups. Conclusion: The study demonstrates the potential of robotic rehabilitation that combines error enhancement and velocity component training to help stroke patients.
Title: Atypical Parkinsonism: Making the case for a neuropalliative rehabilitation approach.

Citation: International Journal of Therapy & Rehabilitation, 01 April 2014, vol./is. 21/4(176-182), 17411645
Author(s): Lindop, Fiona, Brown, Lisa, Graziano, Mariella, Jones, Diana

Abstract: Background: Although atypical Parkinsonism syndromes share some clinical features with the more common idiopathic Parkinson's disease, they also exhibit condition-specific symptoms, and have a shorter trajectory with a more consistent decline. There is an increasing awareness of the need for palliative care in non-cancer-related diagnoses, such as Parkinsonism. A neuropalliative rehabilitation approach linking neurology, rehabilitation and palliative care expertise to proactively, collaboratively manage long-term neurological conditions, particularly those with shorter durations, is advocated. However, such an approach appears difficult to achieve. Content: This article presents the main clinical features of the key atypical Parkinsonism syndromes -- multiple system atrophy, progressive supranuclear palsy, corticobasal degeneration and dementia with Lewy bodies. The article also identifies the red flags that alert professionals to differentiate these conditions from idiopathic Parkinson's disease, and discusses the multidisciplinary management of atypical Parkinsonism within the context of neuropalliative rehabilitation. Conclusion: Despite the publication of best practice guidelines, research highlights a marked lack of referral of people with atypical Parkinsonism for palliative care. Earlier diagnosis and the timely employment of a neuropalliative rehabilitation approach is believed key to the successful management of the shorter and more steeply deteriorating trajectory of atypical Parkinsonism syndromes.

Full Text: Available from EBSCOhost in International Journal of Therapy & Rehabilitation

Title: Acupressure and task-related training after stroke: A case study... including commentary by A de Sa Ferreira.

Citation: International Journal of Therapy & Rehabilitation, 01 April 2014, vol./is. 21/4(183-189), 17411645
Author(s): Shamay Ng, Fong, Shirley, Lam, Stefanie, Lai, Charles, Chow, Lina

Abstract: Previous neurophysiological studies have provided empirical evidence explaining how afferent stimulation through acupuncture can improve motor function after stroke. Acupressure provides afferent stimulation through the application of appropriate pressure using the hands or fingers to spots of the body suitable for acupuncture. However, any therapeutic effects of using acupressure coupled with physical training for patients with stroke have not yet been studied. Aim: This case report describes how an intervention protocol in which acupressure and task-related training were combined to improve lower limb motor functions of an individual 5 years post stroke. Methods: The participant was a 65-year old man who had a stroke 5 years previously. After a 4-week observation period, the participant was given a 4-week (3 days per week) programme consisting of 20 minutes of acupressure to four acupoints in the affected lower leg, followed by 40 minutes of tasks related training. Outcome measures included plantarflexor spasticity, isometric muscle strength in the lower limbs, walking speed, and functional mobility. Results: After the 4-week programme, the strength of the participant's knee extensors, ankle dorsiflexors and plantarflexors, walking speed, and Up and Go times had improved. Those gains were maintained 4 weeks after the intervention ended. The spasticity level of the affected ankle plantarflexors remained unchanged throughout the study. Conclusion: Combining acupressure with a task-related training programme is safe and effective in improving the lower limb motor function of an individual 5 years post stroke.

Full Text: Available from EBSCOhost in International Journal of Therapy & Rehabilitation
Title: Effects of an aquatic therapy approach (Halliwick-Therapy) on functional mobility in subacute stroke patients: a randomized controlled trial.

Citation: Clinical Rehabilitation, 01 May 2014, vol./is. 28/5(432-439), 02692155
Author(s): Tripp, Florian, Krakow, Karsten

Full Text: Available from ProQuest in Clinical Rehabilitation

Title: Nursing practice in stroke rehabilitation: systematic review and meta-ethnography.

Citation: Journal of Clinical Nursing, 01 May 2014, vol./is. 23/9/10(1201-1226), 09621067
Author(s): Clarke, David J

Abstract: Aims and objectives To identify and synthesise the available research evidence in order to generate an explanatory framework for nursing practice in stroke rehabilitation. Background Although nurses are the largest professional group working with stroke survivors, there is limited understanding of nursing practice in stroke units. In particular, there is currently very little evidence in respect of nurses' involvement in poststroke rehabilitation. Design Meta-ethnography. Method A systematic review was undertaken. The review question was: 'What is the nature of nursing practice in the care and rehabilitation of inpatient stroke survivors?' Searches of 12 electronic databases identified 14,655 publications, and after screening, 778 remained; 137 papers were obtained and 54 retained for mapping. Sixteen qualitative studies were included in the meta-ethnography. Results Nurses' involvement in poststroke rehabilitation was limited. Contextual factors impacted on nurses' perceptions and practice. Nurses' integration of rehabilitation skills was perceived to be contingent on adequate nurse staffing levels and management of demands on nurses' time. Team working practices and use of the built environment indicated separation of nursing and therapy work. Physical care and monitoring were prioritised. Stroke-specific education and training was evident, but not consistent in content or approach. Stroke survivors and families needed help to understand nurses' role in rehabilitation. Conclusion The review provides compelling evidence that there is an need to re-examine the role of nurses in contributing to poststroke rehabilitation, including clarifying when this process can safely begin and specifying the techniques that can be integrated in nurses' practice. Relevance to clinical practice Integrating stroke-specific rehabilitation skills in nurses' practice could contribute substantially to improving outcomes for stroke survivors. The explanatory framework developed from the review findings identifies issues which will need to be addressed in order to maximise nurses' contribution to the rehabilitation of stroke survivors.

Title: Evaluating a novel approach to enhancing dysphagia management: workplace-based, blended e-learning.

Citation: Journal of Clinical Nursing, 01 May 2014, vol./is. 23/9/10(1354-1364), 09621067
Author(s): Ilott, Irene, Bennett, Bev, Gerrish, Kate, Pownall, Sue, Jones, Amanda, Garth, Andrew

Abstract: Aims and objectives To evaluate the learning effect and resource use cost of workplace-based, blended e-learning about dysphagia for stroke rehabilitation nurses. Background Dysphagia is a potentially life-threatening problem that compromises quality of life. In many countries, nurses play a crucial role in supporting the management of patients with swallowing problems, yet the literature reports a need for training. Design A single-group, pre- and post-study with mixed methods. Methods Each blended e-learning session comprised a needs analysis, e-learning programmes, practical skills about modifying fluids and action planning to transfer learning into practice. Participants were the population of registered nurses (n = 22) and healthcare assistants (n = 10) on a stroke rehabilitation ward in a large, teaching hospital in England between August 2010- March 2011. Data collection comprised observation (34 hours), questionnaires administered at four time points to examine change in attitude, knowledge and practice, and estimating the resource use cost for the service. Nonparametric tests and content analysis were used to analyse the data. Results All participants achieved a nationally recognised level of competence. The learning effect was evident on the post- and follow-up measures, with some items of dysphagia knowledge and attitude achieving significance at the p ≤ 0·05 level. The most common self-reported changes in
practice related to medicines management, thickening fluids and oral hygiene. The resource use cost was estimated at £2688 for 108 hours training. Conclusions Workplace-based, blended e-learning was an acceptable, cost effective way of delivering essential clinical knowledge and skills about dysphagia. Relevance to clinical practice Dysphagia should be viewed as a patient safety issue because of the risks of malnutrition, dehydration and aspiration pneumonia. As such, it is pertinent to many members of the interdisciplinary team. Consideration should be given to including dysphagia management in initial education and continuing professional development programmes.

Sources Used:

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

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