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Occupational Therapy Update 31 August 2010

Authors  Ravenek M.J. Hughes I.D.
Title  A systematic review of multidisciplinary outcomes in the management of chronic low back pain.
Source  Work (Reading, Mass.). 35 (3) (pp 349-367), 2010.
OBJECTIVE: Previous research has provided an inconsistent message as to the effectiveness of multidisciplinary programs to improve employment outcomes in clients with Chronic Low Back Pain (CLBP). The primary aims of this review were to: 1) update the evidence for the multidisciplinary treatment of CLBP to improve employment outcomes 2) assess what knowledge supports occupational therapy as contributing to a multidisciplinary approach in the treatment of CLBP.
CONCLUSIONS: The results are discussed with reference to current methodological limitations found in the literature. Furthermore, occupational therapists were found to be underutilized in the included studies and future multidisciplinary programs should take advantage of the wide range of skills that occupational therapists can contribute in this practice area.

Authors  Bovend'Eerdt TJ. Dawes H. Sackley C. Izadi H. Wade DT.
Title  An integrated motor imagery program to improve functional task performance in neurorehabilitation: a single-blind randomized controlled trial.
OBJECTIVE: To investigate the feasibility of a motor imagery program integrated into physiotherapy and occupational therapy.
CONCLUSIONS: Therapist and patient compliance with performing the intervention was low, restricting the CONCLUSIONS regarding the effectiveness of the integrated motor imagery program. Future studies will need to explore barriers and facilitators to uptake of this intervention in clinical practice. Trial recruitment and retention were good. The study demonstrated that imagery could be successfully integrated into usual therapy and tailored for a wide range of functional
Publication Type  Clinical Trial, Phase II. Journal Article. Randomized Controlled Trial

Authors  Munin MC. Putman K. Hsieh CH. Smout RJ. Tian W. DeJong G. Horn SD.
Title  Analysis of rehabilitation activities within skilled nursing and inpatient rehabilitation facilities after hip replacement for acute hip fracture.
OBJECTIVE: To characterize rehabilitation services in two types of postacute facilities in patients who underwent hip replacement following a hip fracture.
CONCLUSIONS: Significant differences in rehabilitation activities were observed, and intensity was notably different within the first 8 therapy days even though baseline demographics and medical complexity were comparable across facility types. Our data suggest that after more complex hip replacement surgery, hip fracture patients can tolerate more intensive therapy earlier within the rehabilitation program.
Publication Type  Comparative Study. Evaluation Studies. Journal Article

Authors  Mason T. Caulfield M. Hall R. Melling K.
Title  Perceptions of diagnostic labels in forensic psychiatric practice: a survey of differences between nurses and other disciplines.
This paper reports on a study of nurses’ and non-nurses’ perceptions of labels of mental illness and personality disorder in forensic services in the UK. The target population included clinical health care staff who had patient contact, including nurses, psychiatrists, psychologists, social workers, and occupational therapists. The results indicate that there are statistically significant differences within both nursing and non-nursing groups and also between the groups in relation to a “management” perspective for individuals labelled with a personality disorder and a "clinical" focus for individuals who are labelled as mentally ill. This paper adds research into the arena of forensic mental health in relation to the diagnostic labels of mental illness and personality disorders. It also adds evidence of a clinical response or a management response to such diagnostic labels which may impact on the practice of forensic psychiatry.
Publication Type  Comparative Study. Journal Article.
BACKGROUND: The Chedoke Arm and Hand Activity Inventory (CAHAI) is an outcome measure that assesses upper limb ability after stroke. PURPOSE: To explore the clinical utility of the CAHAI when used by occupational therapists in stroke rehabilitation. FINDINGS: A range of perspectives on the clinical utility of the CAHAI were described. Themes that emerged were "instructions ambiguous and scoring unclear," "how we use it," "whole task versus motor components," "knowing when to use it," "detecting other impairments," and "changing the way clients do tasks." IMPLICATIONS: The clinical application of the CAHAI may be influenced by occupational therapy values, differences in training procedures, and organisational barriers. Training and strategies to address these issues may be beneficial.

Authors Gustafsson LA. Turpin MJ. Dorman CM.

Title Clinical utility of the Chedoke Arm and Hand Activity Inventory for stroke rehabilitation.


This study investigated the effectiveness of a 20-week Simulated Developmental Horse-Riding Program (SDHRP) by using an innovative exercise equipment (Joba) on the motor proficiency and sensory integrative functions in 60 children with autism (age: 6 years, 5 months to 8 years, 9 months). In the first phase of 20 weeks, 30 children received the SDHRP in addition to their regular occupational therapy while another 30 children received regular occupational therapy only. The arrangement was reversed in the second phase of another 20 weeks. Children with autism in this study showed improved motor proficiency and sensory integrative functions after 20-week SDHRP (p < .01). In addition, the therapeutic effect appeared to be sustained for at least 24 weeks (6 months).

Authors Wang YP. Wang CC. Huang MH. Su CY.

Title The effectiveness of simulated developmental horse-riding program in children with autism.

Source Adapted Physical Activity Quarterly. 27(2):113-26, 2010 Apr.

BACKGROUND: Chronic depression is a particularly disabling mood disorder and treatment outcomes are poor with either psychotherapy or pharmacotherapy alone. There is growing evidence that an integrative treatment approach may be optimal. A novel multi-modal, multi-disciplinary treatment program, Re-ChORD, was developed at the University of British Columbia and evaluated in this pilot study.

CONCLUSIONS: Consistent with growing evidence that integrative treatments are necessary for chronic depressive disorders, Re-ChORD was demonstrated in this pilot study to produce significantly greater rates of remission than treatment as usual. A larger-scale trial is warranted.

Authors Murray G. Michalak EE

Title Relief of chronic or resistant depression (Re-ChORD): a pragmatic, randomized, open-treatment trial of an integrative program intervention for chronic depression.


PURPOSE: Stroke survivors report multiple psychosocial issues after discharge and difficulties returning to meaningful roles and activities. This study explored the impact of an occupation-based group program on activity levels, well-being, and self-efficacy after discharge from inpatient rehabilitation.

CONCLUSION: There was no indication from the results of this study that an occupation-based group program had a positive effect on the measured outcomes.

Authors Gustafsson L. McKenna K.

Title Is there a role for meaningful activity in stroke rehabilitation?.


PURPOSE: Stroke survivors report multiple psychosocial issues after discharge and difficulties returning to meaningful roles and activities. This study explored the impact of an occupation-based group program on activity levels, well-being, and self-efficacy after discharge from inpatient rehabilitation.

CONCLUSION: There was no indication from the results of this study that an occupation-based group program had a positive effect on the measured outcomes.

Authors Bolimos M. Willoughby M

Cancer Related Fatigue (CRF) is a multi-dimensional and widely acknowledged symptom that affects the physical and psychological wellbeing of patients with a cancer diagnosis, before, during and after treatment. Recommendations for managing CRF from recent systematic reviews indicate that Activity Enhancement (Exercise); Psycho-social interventions; Energy Conservation Education; Nutrition Consultation and Sleep Hygiene need to be addressed to enable patients to better cope with changing energy levels. A collaborative pilot project to address CRF Management at the Royal Adelaide Hospital (RAH) utilised multi-disciplinary expertise to develop, operate & evaluate an education service accessible by the hospital's cancer patients. The program consisted of ten fortnightly sessions, held from February to July - of 1.5 hours each, offering new cancer patients education and management strategies during their cancer diagnosis & treatment. Complementary presentations were made by Occupational Therapy, Physiotherapy, Exercise Physiology and Dietetics Departments, with written material from Clinical Psychology and Social Work Departments also being distributed. Patients then self-referral to these disciplines for individual consultation if required. At the conclusion of the pilot, 10 successful workshops were held, with 79 patients participating. All patients reported a fatigue score and a fatigue knowledge score at the commencement of each workshop. Almost 60% of participants provided a 6 weeks post attendance knowledge score, with an increase in knowledge about CRF reported by all. Survey feedback from 91% of patients indicates they were all very satisfied with the service & found it beneficial in understanding their cancer journey and can now access services previously unknown to them. Results from the evaluation phase will be presented in August. Suggestions for expansion of the program to cater to the needs of all cancer patients within the RAH as well as those in other local hospitals will be explored at this time.

Authors Hoare B. Imms C. Rawicki H.B. Carey L.
Source Developmental Medicine and Child Neurology.
A combination of Botulinum toxin-A (BoNT-A) and occupational therapy has been found to be more effective than occupational therapy alone in reducing impairment, improving activity level outcomes and goal achievement for children with cerebral palsy (CP). It is now essential to identify the most effective adjunct therapies following injection of BoNT-A including the timing, frequency and intensity of delivery. Objective: This study aimed to evaluate the effects of modified constraint-induced movement therapy (mCIMT) in comparison to bimanual occupational therapy (OT) following upper limb injection of BoNT-A in children with hemiplegic CP.

Conclusion: This study provides the first-ever randomized controlled trial evidence to demonstrate the effects of a uni-manual versus bimanual treatment following upper limb injection of BoNT-A in children with hemiplegic CP. Preliminary data analysis of 26 children suggested no group effect favouring mCIMT or bimanual OT following injection of BoNT-A at 3 months. Final analysis of all 34 participants will yield sufficient power to confirm the result.

Authors Kanelisto K. Karhula M. Kronlfl G.H.
Background: This systematic review was conducted as a part of the 'VAKE' - Development and Research Project led by the Social Insurance Institute of Finland, focusing on developing rehabilitation practices for severely disabled persons. Objective: To assess the effects and effectiveness of occupational therapy (OT) interventions for children and adolescents with cerebral palsy (CP)

Results and CONCLUSIONS: Two reviews were identified, both were of high methodological quality. In addition, 17 randomised controlled/clinical controlled trials met the inclusion criteria, some of them were fair methodological quality. 13 trials focused on rehabilitation of the upper limb, two on sensory-motor performance and two on enhancing mother-child interactions in play. No occupational-based intervention trials focusing on enabling occupational performance or roles in everyday life among children were identified. Further research is needed to confirm positive effects of existing heterogenic and mostly small trials. There is an urgent need for trials focusing on other areas of OT practice to extend the profession's focus from impairment level to enabling participation in meaningful occupations in everyday life for children and adolescents with CP.
Authors Bedekar Y

Introduction: Research indicates that young stroke survivors have unmet needs around support for returning to work (The Stroke Association, 2006). In Tower Hamlets, staff and service user feedback highlighted that, due to the time bound intervention provided by the Community Stroke Team, vocational needs were not fully addressed. A new Occupational Therapy (OT) -led vocational rehabilitation program was developed to provide timely short-term and long-term support to young stroke survivors. Method: Over a 3-month OT secondment, local needs were defined through collaboration with the Stroke team, Department of Work & Pensions and local non-statutory stakeholders. A literature review established best practice guidelines and identified a basket of outcome measures which reflected the different clients in the pathway but also fit with existing service measures. Results: A Vocational Rehabilitation Pathway was identified by the stakeholders with local agreement on joint working processes to ensure timely and appropriate referral to the service. SMART Goals, COPM and AUSTOMS were also identified as suitable measures as they would complement the measures used in the existing Stroke pathway. Client satisfaction questionnaires have enabled service user feedback.

Discussion: Future developments include: Developing an expert patient panel to contribute to service delivery. Test and evaluate the pathway by using the Audit Cycle. Advice and intervention service post TIA or mild stroke. Formalising service level agreements with stakeholders. Develop economic modelling to reinforce cost efficacy.

Authors Baird T. Conner W.

Introduction: National Clinical Guidelines (2008) recommend a protocol for routine screening using locally agreed tools and simple standardised measures. The London Stroke strategy (2009) states all stroke patients should receive screening for cognitive and perceptual impairments within 24 h. A full assessment within 7 days should be completed if indicated. A workshop for Occupational Therapists (OT) in North East London Stroke and Cardiac Network (NELC&SN) highlighted that using the same assessments would facilitate clearer communication across the network. This group took part in an audit to establish current screening protocols and assessments. Method: The initial questionnaire was designed and then reviewed by five Senior Occupational Therapists and the final questionnaire format was adapted accordingly. The questionnaire used a mix of open and closed questions to allow for more detailed responses to guide further workshops. All OTs (n=30) working in NELC&SN were asked to participate using an online questionnaire. Data analysis of the closed questions using percentages and frequencies of responses and content analysis of the open questions was completed. Results: A sum of 67% responded; 50% currently use a functional task as a screening tool. 45% use non standardised screens with only 5% using a standardised screen. A wide variety of standardised assessments are being used and there are no local protocols for screening and assessment in place.

Conclusion: OTs recognise the benefits of an assessment tool box across the network. Further workshops to disseminate results, agree on a screening protocol and a reporting structure to be completed.

Authors Roe M.A. Lovatt J. Greenwood J

Introduction: Nottingham University Hospitals (NUH) Stroke Unit run established group rehabilitation sessions providing in excess of 45min daily therapy (concise guidelines for Stroke 2008). This has been expanded to include a gardening group run by occupational therapy and physiotherapy support staff. Inclusion of two disciplines of therapy staff enables double the amount of patients to access the groups. The poster will reflect the effectiveness of the gardening group as an MDT venture. Method: A convenience sample of 20 stroke patients who attended the gardening group completed questionnaires to determine the effectiveness of the group from the patients’ perspective. Mixed methodology gained both qualitative and quantitative data. SMART (specific, measurable, achievable, realistic, timed) goals were written and reviewed for all patients and evaluation forms were completed by the group facilitator after each session. Result: Our findings demonstrate that group rehabilitation increases the overall therapy time the patient receives. Positive outcomes of close MDT working have meant a clearer understanding of team roles as a result. The study showed that the
patients involved found the group purposeful and increased their confidence in their abilities post-stroke. Other benefits as highlighted by attendees of the gardening group included not feeling isolated, increased mood, and an increased ownership of their rehabilitation.

Conclusion: The study demonstrates that group rehabilitation can be effective and provide positive outcomes in order to meet the OT concise guidelines for stroke 2008. The success of this project has increased opportunities to further expand interdisciplinary working on the stroke unit in order to increase patients’ experience.

Authors Hewlett S. Ambler N. Knops B. Cliss A.

Background: Up to 90% of people with Rheumatoid Arthritis experience distressing and unmanageable fatigue that impacts profoundly on life. Biological therapies can lessen fatigue but are not always appropriate. In other long-term conditions, fatigue self-management programmes using cognitive behavioural techniques (CBT) have shown benefit. This randomized controlled trial aimed to test CBT in RA fatigue.

CONCLUSIONS: CBT for the self-management of fatigue in RA appears to give substantial short-term benefit to patients for severity and impact of fatigue and perceived ability to cope with fatigue, as well as anxiety, depression and quality of life, compared with provision of self-management information alone. These data suggest an important new avenue of support for people with RA.

Authors Munin M.C. Putman K. Hsieh C.H.
Title Analysis of rehabilitation activities within skilled nursing and inpatient rehabilitation facilities after hip replacement for acute hip fracture.
Source American journal of physical medicine & rehabilitation / Association of Academic Physiatrists. 89 (7) (pp 530-540), 2010.

OBJECTIVE: To characterize rehabilitation services in two types of postacute facilities in patients who underwent hip replacement following a hip fracture.

CONCLUSIONS: Significant differences in rehabilitation activities were observed, and intensity was notably different within the first 8 therapy days even though baseline demographics and medical complexity were comparable across facility types. Our data suggest that after more complex hip replacement surgery, hip fracture patients can tolerate more intensive therapy earlier within the rehabilitation program.

Authors Stergiou-Kita M. Yantzi A. Wan J
Title The personal and workplace factors relevant to work readiness evaluation following acquired brain injury: Occupational therapists' perceptions.
Source Brain Injury. 24 (7-8) (pp 948-958), 2010.

Objective: This study examined the personal and workplace/environmental factors perceived most relevant to work readiness evaluations following acquired brain injury.

CONCLUSIONS: Findings suggest that work readiness needs to be viewed as both a client and a workplace issue. Findings are translated into questions for rehabilitation professionals to guide evaluations of work readiness. Recommendations for future research include investigating how professionals weigh factors in their decision-making and exploring strategies relevant from a workplace perspective.

Authors Wuang Y.-P. Wang C.-C. Huang M.-H. Su C.-Y.
Title The effectiveness of simulated developmental Horse-Riding program in children with autism.
Source Adapted Physical Activity Quarterly. 27 (2) (pp 113-126), 2010.

This study investigated the effectiveness of a 20-week Simulated Developmental Horse-Riding Program (SDHRP) by using an innovative exercise equipment (Joba) on the motor proficiency and sensory integrative functions in 60 children with autism (age: 6 years, 5 months to 8 years, 9 months). In the first phase of 20 weeks, 30 children received the SDHRP in addition to their regular occupational therapy while another 30 children received regular occupational therapy only. The arrangement was reversed in the second phase of another 20 weeks. Children with autism in this study showed improved motor proficiency and sensory integrative functions after 20-week SDHRP (p < .01). In addition, the therapeutic effect appeared to be sustained for at least 24 weeks (6 months).

Authors Davidson K.F. Bressler S.I.
Title Piloting a points-based caseload measure for community based paediatric occupational and physiotherapists.

BACKGROUND: Caseload guidelines and workload management are important issues in recruitment and retention of paediatric rehabilitation therapists. PURPOSE: This study developed and piloted a points-based caseload questionnaire for paediatric occupational and physiotherapists

FINDINGS: The data suggested links between caseload point size and various factors such as years of experience, manageability, and client maturity. Focus group feedback supported the use of points rather than numbers as a caseload measure. Participants suggested various uses for the measure and changes to improve ease and consistency in completion.

IMPLICATIONS: This caseload measure holds promise, following ongoing research, as a method to standardize caseloads across paediatric settings. As is, it can be used within agencies or by individual therapists seeking a tool of self-reflection and of workload measure.

Authors Silva R.C.R. Saute J.A.M. Silva A.C.F

Title Occupational therapy in spinocerebellar ataxia type 3: An open-label trial.
Source Brazilian Journal of Medical and Biological Research. 43 (6) (pp 537-542), 2010.

Occupational therapy (OT) is a profession concerned with promoting health and well-being through occupation, by enabling handicapped people to participate in the activities of everyday life. OT is part of the clinical rehabilitation of progressive genetic neurodegenerative diseases such as spinocerebellar ataxias; however, its effects have never been determined in these diseases. Our aim was to investigate the effect of OT on both physical disabilities and depressive symptoms of spinocerebellar ataxia type 3 (SCA3) patients. Genomically diagnosed SCA3 patients older than 18 years were invited to participate in the study. Disability, as evaluated by functional independence measurement and Barthel incapacitation score, Hamilton Rating Scale for Depression, and World Health Organization Quality of Life questionnaire (WHOQOL-BREF), was determined at baseline and after 3 and 6 months of treatment. Twenty-six patients agreed to participate in the study. All were treated because OT prevents blinding of a control group. Fifteen sessions of rehabilitative OT were applied over a period of 6 months. Difficult access to food, clothing, personal hygiene, and leisure were some of the main disabilities focused by these patients. After this treatment, disability scores and quality of life were stable, and the Hamilton scores for depression improved. Since no medication was started up to 6 months before or during OT, this improvement was related to our intervention. No association was found between these endpoints and a CAG tract of the MJD1 gene (CAGn), age, age of onset, or neurological scores at baseline (Spearman test). Although the possibly temporary stabilization of the downhill disabilities as an effect of OT remains to be established, its clear effect on depressive symptoms confirms the recommendation of OT to any patient with SCA3 or spinocerebellar ataxia.

Authors Abootalebi S. Khoshnevisan A. Kohan A.H

Title The effects of "Constraint-Induced Movement Therapy" on fine motor skills in children with hemiplegic cerebral palsy.
Source Tehran University Medical Journal. 68 (2) (pp 128-136), 2010.

Background: Constraint-Induced movement therapy (CIMT) is a promising treatment for improving upper limb function in adults after stroke and traumatic brain injury. It involves constraint of the less affected limb and intensive practice with the more affected limb. The purpose of this study on children with hemiplegic cerebral palsy (CP) was to evaluate the effects of CIMT on upper extremity and to make a comparison with conventional treatment.

Results: The children who received CIMT did not improve their ability to use their hemiplegic hand significantly more than the children in the control group (p>0.05). However, reports of caregivers and clinical observations showed increases in more affected limb frequency of use and quality of movement.

Conclusion: Results suggest that the use of CIMT needs to more studies and should be considered experimental in children with hemiplegic

Authors Griffith C. Guthrie S. Papasifakis B.
Background: Exercise has been shown to have favorable effects in patients with heart failure (HF). Even modest exercise can reduce blood pressure and blood glucose levels, reduce stress and depression, improve muscle mass, improve cardiovascular endurance, improve aerobic capacity, and even assist with remaining independent in the living environment. Despite all of this evidence, HF patients are frequently underserved by physical and occupational therapy in the home healthcare setting. This is in large part due to lack of confidence in delivering care to HF patients.

Results: Preliminary results show an improvement in therapy utilization with an increase in total visits per episode and a decrease in percent of episodes with no therapy. Patient outcomes have improved including follow through with a home exercise program, ability to perform ADLs without assistance, and level of dyspnea with exertion. Conclusion: Implementing the therapy core curriculum gave the home healthcare therapists new confidence in proper care and treatment of the HF patient. This has led to more comprehensive patient care and improved outcomes. Additional coursework and clinical labs will be implemented with therapists and nurses in 2010; including, additional training in RPE scales, pulmonary assessment and treatment, and physical assessment of the cardiopulmonary patient.

Authors Hoare B.J. Imms C. Rawicki H.B

Title Modified constraint-induced movement therapy or bimanual occupational therapy following injection of Botulinum toxin-A to improve bimanual performance in young children with hemiplegic cerebral palsy: A randomised controlled trial methods paper.


Background: Use of Botulinum toxin-A (BoNT-A) for treatment of upper limb spasticity in children with cerebral palsy has become routine clinical practice in many paediatric treatment centres worldwide. There is now high-level evidence that upper limb BoNT-A injection, in combination with occupational therapy, improves outcomes in children with cerebral palsy at both the body function/structure and activity level domains of the International Classification of Functioning, Disability and Health. Investigation is now required to establish what amount and specific type of occupational therapy will further enhance functional outcomes and prolong the beneficial effects of BoNT-A.

Discussion: The aim of this paper is to describe the methodology of a randomised controlled trial comparing the effects of modified constraint-induced movement therapy (a unimanual therapy) versus bimanual occupational therapy (a bimanual therapy) on improving bimanual upper limb performance of children with hemiplegic cerebral palsy following upper limb injection of BoNT-A.

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