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1. MEDLINE; *NERVOUS SYSTEM DISEASES/; 20280 results.
2. MEDLINE; *MOTOR SKILLS/; 8767 results.
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5. MEDLINE; 3 AND 4; 2 results.
6. MEDLINE; *SELF CARE/; 9542 results.
7. MEDLINE; 3 AND 6; 0 results.
8. MEDLINE; 1 AND 4; 79 results.
9. MEDLINE; 6 AND 8; 0 results.
10. AMED; exp NERVOUS SYSTEM DISEASE/; 41678 results.
11. AMED; exp CEREBRAL PALSY/; 1539 results.
12. AMED; exp PHYSIOTHERAPY/; 0 results.
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15. AMED; exp MOTOR SKILLS/ OR exp MOTOR ACTIVITY/; 2319 results.
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17. AMED; 14 AND 16; 7 results.
18. AMED; 10 AND 15; 573 results.
19. AMED; 14 AND 18; 16 results.
20. CINAHL; *NEURODEGENERATIVE DISEASES/ OR *GAIT DISORDERS, NEUROLOGIC/; 386 results.
21. CINAHL; *NERVOUS SYSTEM DISEASES/; 1466 results.
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26. CINAHL; 22 AND 25; 11 results.
27. MEDLINE,AMED,CINAHL; Duplicate filtered: [3 AND 4], [14 AND 16], [14 AND 18], [22 AND 23], [22 AND 25]; 39 results.

1. A qualitative study in neurological physiotherapy and hope: beyond physical improvement.

Citation: Physiotherapy Theory & Practice, 01 February 2010, vol./is. 26/2(79-88), 09593985

Author(s): Soundy A; Smith B; Butler M; Lowe CM; Helen D; Winward CH

Language: English

Publication Type: journal article

Subject Headings:
Hope
Nervous System Diseases
Physical Therapy Practice
Audiorecording
Female
Hope
Human
Qualitative Studies
Semi-Structured Interview

Source: CINAHL

2. Ability to adjust reach extent in the hemiplegic arm

Citation: Physiotherapy (London), September 2009, vol./is. 95/3(176-84), 0031-9406 (2009 Sep)

Author(s): van Vliet PM; Sheridan MR

Language: English

Abstract: Objective: Insufficient information exists about the ability of hemiparetic patients to adjust reach extent during early recovery from stroke. Further knowledge may suggest guidance for therapy intervention. The objective of this study was to investigate the ability of hemiparetic subjects to adjust reach extent within 6 months after stroke. Design: repeated-measures design experiment with two factors - group and target position. Setting: Physiotherapy department. Participants: Nine hemiparetic and nine age- and gender-matched healthy subjects. Methods: Participants performed 15 reaching movements in the sagittal plane, five to each target of 8, 13 and 18cm from the starting position. Main outcome measures: Motion analysis was used to collect information on the kinematic variables of distance moved, movement duration, peak velocity, average velocity and the timing of peak velocity. These variables were compared between the different target positions and between groups.

Publication Type: Journal Article

Subject Headings:
Hemiplegia
physical therapy modalities
reaching
stroke
humans
Physiology

Source: AMED

3. Get the balance right.

Citation: Physiotherapy Frontline, 03 June 2009, vol./is. 15/10(26-28), 13569791

Author(s): Wright J

Language: English

Abstract: A lack of awareness of how physiotherapy helps with dizziness means patients aren't getting the help they need, says Janet Wright.

Publication Type: journal article

Subject Headings:
Nervous System Diseases
Vestibular Diseases

Balance, Postural
Dizziness
Nervous System Diseases
Physical Therapy

Source: CINAHL

4. High risk newborn. Neurological risk factors, physiotherapy intervention and type of follow up [Spanish].

Citation: Fisioterapia, 01 January 2008, vol./is. 30/1(5-15), 02115638

Author(s): Plaza Vera M; De Gracia Miró C

Language: English

Abstract: Objectives. Know the newborn sensory motor profile and type of follow up after discharge at its relation with neurolgical risk factors.; Patients and methodology. We analyzed 93 prematurely delivered and full-term infants in 2005, who were admited to the Neonatology ward, and given early hospital care. We show the interventions and the physiotherapy rating to find out the sensory motor profile of the infant. We gather clinical data of the physiotherapy rating and the type of monitoring.; Results. On being discharged from hospital, over half of them do not have good stability and sistems organitation. The newborns with a sensory motor dysfunction have more neurological risk factors. The newborn are submitted to rehabilitating medical monitoring and 25% need physioterapeutic treatment or monitoring. Conclusions. Full-term infants have a higher ratio of sensory motor dysfunction due to the detection of many illnesses at this stage. Having many infants with neurological risk factors is no always synonymous of sensory motor dysfunction. Analysing the newborn and our interventions allows us to know more about the infants, and may help us to unify criteria in the selection, intervention and monitoring, witin the multidisciplinary health team which assists the high risk neonatal infants.[sic]

Publication Type: journal article

Subject Headings:
Infant, Newborn, Diseases
Nervous System Diseases
Pediatric Physical Therapy
Psychomotor Performance
Data Analysis Software
Descriptive Statistics
Gestational Age
Homeostasis
Infant Development
Infant, Newborn
Infant, Premature
Inpatients
Movement
Nonexperimental Studies
Pediatric Units
Physical Therapy Assessment
Posture
Prospective Studies
Human

Source: CINAHL

5. Physiotherapy in the process of coping with the losses in patients with neurological diseases [Portuguese].

Citation: Fisioterapia em Movimento, 01 July 2007, vol./is. 20/3(71-78), 01035150

Author(s): Bim CR; Carvalho MDB; Pelloso SM

Language: English

Abstract: The neurological diseases are frequent and many times cause limitations which being progressive force the person to face the daily losses which can lead to death. Approaching

themes such as losses and antecipatory mourning is a rare practise among physiotherapists. The present study aimed at understanding the process of restructure when facing the crisis of the disease, the participation in the treatment, the experiences gained when dealing with losses and the work of the physiotherapist. It is a qualitative study which, through carrying out a semi-structured interview with six patients, intended to understand the life experience of neurological patients when dealing with their losses and later facing them. The answers were groupedinto six analysis categories: not knowing the problem, difficult acceptance of the diagnosis, the basic daily activities are the biggest difficulties, adaptation to the damages is a process, hope to get better, physiotherapy helps to cope with the loss. Although the interviewee presented different clinic, the regognition of the benefits given by Physiotherapy was unanimous. The accounts in this research allow us to conclude that Physiotherapy helps the neurological patients to face their losses, specially the physical ones. The palliative physiotherapy must be more discussed and studied to get better results.

Publication Type: journal article

Subject Headings:
Adaptation, Psychological
Coping
Nervous System Diseases
Physical Therapy
Rehabilitation Patients
Activities of Daily Living
Adolescence
Adult
Aged
Attitude to Health
Attitude to Illness
Female
Male
Middle Age
Patient Attitudes
Qualitative Studies
Semi-Structured Interview
Human

Source: CINAHL

6. Jumping as training for hemiparetic patients following stroke: a case study

Citation: Z Physiother Krankengymnastik, 2006, vol./is. 58/7(732-7), 1614-0397 (2006)

Author(s): Mehrholz J; Rutte K; Pohl M

Language: German

Abstract:
The single case study presented here describes the use of jumping exercises within the framework of individual physiotherapy for a patient with hemiparesis following stroke. In the rehabilitation program of a 60-year-old patient, 3 weeks post-stroke, we implemented jumping training consisting of 3 exercises: repetitive jumping, high jump, and broad jump. The patient improved his score on the Barthel index (B!) from 30 to 90 points, and in the Rivermead motoricity index (RMI) from 6 tol4 points. At the start of his rehabilitation, he was unable to walk unassisted; after 6 weeks he was independent in ambulation (an improvement from 2 to 5in his FAC score). He increased the distance he could walk from 95 to 380 meters, his walking speed increased from 0.2 to 1.2 m/s, and his pace length from 0.3 to 0.8 meters. In addition, his gait quality improved according to the Rivermead visual gait assessment (RVGA) criteria, along with the strength of his affected leg as measured by the motoricity index (MI). During and immediately following the 6-week period of observation, he suffered no side effects (e.g. pain). The values of both the Tardieu and Ashworth scales, as well as the Fugl-Meyer subtests for ,'passive joint mobility' and ,'pain' of the upper and lower extremities remained unchanged in comparison to the initial tests. In conclusion, the integration of jumping training for patients following stroke is an effective complement to neurological rehabilitation following stroke, based on the experience of these authors.

Publisher: Z Physiother Krankengymnastik

Publication Type: Journal Article

Subject Headings:
Cerebrovascular accident
Paralysis
Jumping
humans
Rehabilitation
Middle aged

Source: AMED

7. Neurological rehabilitation: the scientific basis of clinical practice [French].

Citation: Kinesitherapie, Les Annales, 01 February 2005, vol./is. /38-39(42-49), 16328345

Author(s): Shepherd R; Carr J

Language: English

Abstract: The contribution of physiotherapy in neurological rehabilitation is the training of motor control and the optimisation of motor performance in functional actions. Recent clinical developments reflect increased scientific understanding in several fields. This paper discusses research findings that are driving changes in intervention to provide more effective and efficient motor performance ; findings related to impairments, motor learning, strength training and task specificity ; fitness training, the role of exercise and training in brain plasticity ; and the re-habilitation environment. This abstract was translated into English by the publisher or author.

Publication Type: journal article

Subject Headings:
Nervous System Diseases
Neuromuscular Control
Psychomotor Performance
Physical Therapy
Motor Skills
Skill Acquisition
Muscle Strengthening
Functional Training
Aerobic Exercises
Exercise Physiology
Neuronal Plasticity

Source: CINAHL

8. The use of technology-supported mental imagery in neurological rehabilitation: a research protocol.

Citation: Cyberpsychology & Behavior, August 2003, vol./is. 6/4(421-7), 1094-9313;1094-9313 (2003 Aug)

Author(s): Morganti F; Gaggioli A; Castelnuovo G; Bulla D; Vettorello M; Riva G

Institution: Applied Technology for Neuro-Psychology Laboratory, Istituto Auxologico Italiano, Via Spagnoletto 3, 20149 Milan, Italy. francesca.morganti@auxologico.it

Language: English

Abstract: The human brain can simulate motor actions without physically executing them, and there is a neuro-psychological relationship between imaging and performing a movement. These are shared opinions. In fact there is scientific evidence showing that the mental simulation of an action is correlated to a subliminal activation of the motor system. There is also evidence that virtual stimulation can enhance the acquisition of simple motor sequences. In some situations, virtual training was found to be as beneficial as real training and more beneficial than workbook and no training in teaching complex motor skills to people with learning disabilities. Moreover, studies of brain-injured hemiplegics patients suggest that these patients retain the ability to generate accurate motor images

even of actions that they cannot perform. Combined with evidence indicating that motor imagery and motor planning share common neural mechanisms, these observations suggest that supporting mental imagery through non-immersive, low-cost virtual reality (VR) applications may be a potentially effective intervention in the rehabilitation of brain-injured patients. Starting from this background, our goal is to design and develop a new technique for the acquisition of new motor abilities- "imagery enhanced learning" (or I-learning)-to be used in neuro-psychological rehabilitation. A key feature of I-learning is the use of potentially low-cost, Virtual Reality enhanced technology to facilitate motor imagery creating a compelling sense of presence. This paper will discuss the rationale and a preliminary rehabilitation protocol for investigating mental imagery as a means of promoting motor recovery in patients with a neurological disorder. The treatment strategy aims at evoking powerful imaginative responses using an innovative technique which makes no attempt to simulate the real-world motor behavior, but draws the patient's attention to its underlying dynamic structure. This is done by displaying highly stylized sketches of the motor behavior on a computer screen and gradually increasing the perceptual realism of the visualization. This strategy assumes that optimal learning will be achieved when the patient is allowed to elaborate his own schema and sequences of movements, thereby constructing his own personal image of the motor behavior to be trained.

Country of Publication: United States

Publication Type: Journal Article; Research Support, Non-U.S. Gov't

Subject Headings:
Activities of Daily Living
Brain Injuries/rh [Rehabilitation]
Computer Simulation
Humans
Imagery (Psychotherapy)
*Imagination
Mental Processes/ph [Physiology]
*Motor Skills/ph [Physiology]
*Nervous System Diseases/rh [Rehabilitation]
Neuropsychology/mt [Methods]
Physical Therapy Modalities/is [Instrumentation]
*Physical Therapy Modalities/mt [Methods]
*Practice (Psychology)
Recovery of Function
Therapy, Computer-Assisted/mt [Methods]
User-Computer Interface

Source: MEDLINE

9. Effects of neurodevelopmental therapy on motor development in children with cerebral palsy

Citation: Fizyoterapi Rehabilitasyon, December 2002, vol./is. 13/3(117-23), 1300-8757 (2002 Dec)

Author(s): Kerem M; Livanelioglu A

Language: English

Abstract: Purpose: The purpose of this study was to investigate the effects of early and late exercise programs based on neurodevelopmental therapy (NDT), on motor development in children with cerebral palsy (CP). Material and methods: To determine the difference between early and late exercise programs, children were divided into two groups according to their chronological age: late physiotherapy intervention (LPI) group consisted of 412 children (267 male, 145 female) with CP aged ?c 12 months, and early physiotherapy intervention (EPI) group was composed of 75 children (40 male, 35 female) with CP aged less than 12 months. All subjects were followed for 18 months in 3 month control visits. Before exercise program, motor developmental level was measured by Gross Motor Function Measure (GMFM) and ambulation status was recorded for all subjects. In each control, GMFM and ambulation evaluation were repeated. Parents were trained to give the exercise program, based on NDT, by physiotherapists, according to motor developmental levels. A questionnaire was given to the parents in order to measure

the understanding level and efficacy of training. Results: Within group comparison showed that motor development level improved significantly after 18 months (p less than 0.05); however, the increase in GMFM scores for EPI was higher than LPI (p less than 0.05). Conclusion: The mean percentage change of GMFM was 22% in the EPI group, and 11% in the LPI group. These results indicated that EPI has more advantages than LPI.

Publication Type: Journal Article

Subject Headings:
Cerebral palsy
Motor skills
Neurodevelopmental therapy
Child
Treatment outcome

Source: AMED

10. Functional outcome of botulinum toxin A injections to the lower limbs in cerebral palsy

Citation: Developmental Medicine and Child Neurology, December 2002, vol./is. 44/12(820-7), 0012-1622 (2002 Dec)

Author(s): Reddihough DS; King JA; Coleman GJ; Fosang A; McCoy AT; Thomason P; Kerr Graham H

Language: English

Abstract: We evaluated gross motor function following botulinum toxin A (BTX-A) injections in the lower limbs of children with spastic cerebral palsy in a randomized controlled trials, using cross-over design. Forty-nine children (24 males, 25 females, age range 22 to 80 months) were randomly allocated to two groups: group 1 received BTX-A and phsyiotherapy, and group 2 received physiotherapy alone for 6 months. At the end of this period, group 2 received BTX-A and physiotherapy and group 1 continued with physiotherapy alone. Assessment measures were the Gross Motor Function Measure (GMFM), the Vulpe Assessment Battery (VAB), joint range of movement, the Modified Ashworth Scale, and a parental questionnaire. Sustained gains in gross motor function were found in both groups of children but the only additional benefit found in group 1 was a significant increase in fine motor rating on the VAB. By contrast, parents rated the benefit of treatment highly. It is likely that assessment at 3 and 6 months post injection was too late to demonstrate peak gross motor function response and that changes in GMFM are not sustained over 6 months with a single dose. Further studies should investigate changes over shorter time periods and consider covariables such as BTX-A dosage, number of injection sites, and the role of repeated injections combined with other interventions such as casting.

Publication Type: Journal Article

Subject Headings:
Cerebral palsy
Botulinum toxins
Injections
Motor activity
Child
Physiotherapy
Treatment outcome

Source: AMED

Full Text: Available in *fulltext* at *ProQuest*

11. The effect of independent practice of motor tasks by stroke patients: a pilot randomized controlled trial

Citation: Clinical Rehabilitation, August 2002, vol./is. 16/5(473-80), 0269-2155 (2002 Aug)

Author(s): Pollock AS; Durward BR; Rowe PJ; Paul JP

Language: English

Abstract: OBJECTIVE: To investigate the effect of independent practice of sitting balance as an addition to standard physiotherapy treatment for patients with stroke. DESIGN:

Randomized controlled trial, using blocked randomization procedure with 2:1 ratio. SUBJECTS: Inpatients with diagnosis of stroke, having achieved one minute of independent sitting balance but not yet achieved 10 independent steps, and with no known previous disabilities, pathology or neurological deficit affecting mobility prior to stroke. INTERVENTION: A four-week regime of independent practice aimed at improving aspects of balance, as an addition to standard physiotherapy treatment based on the Bobath Approach. MAIN OUTCOME MEASURE: Proportion of patients achieving 'normal' symmetry of weight distribution during sitting, standing, rising to stand, sitting down, and reaching. RESULTS: Nineteen subjects were randomized to the control group; nine to the intervention group. There were no clinically significant differences in measured outcome between the groups. CONCLUSIONS: The regime of independent practice had no measured beneficial effect on the balance ability of patients with recently acquired stroke.

Publication Type: Journal Article

Subject Headings:
Cerebrovascular disorders
Motor activity
Balance
Disability evaluation
Rehabilitation
Physiotherapy
Education

Source: AMED

Full Text: Available in *fulltext* at *ProQuest*

12. A three year study on the progress of children following physiotherapy treatment for dyspraxia

Citation: Dyspraxia Foundation Professional Journal, 2002, vol./is. 1/(9-23), 1478-1506 (2002)

Author(s): Lee M; Smith GN

Language: English

Abstract: Following a study of 60 children with dyspraxia in 1998 by Lee and Smith, the authors were keen to ascertain whether the improvement that had been reported at that time was maintained for up to three years post-physiotherapy. Results from this new study showed that 33 out of the 60 children had continued to attend for reviews. Twelve out of the total of 60 had required further courses of treatment and had shown that subsequently they, and all of the children who had continued to be reviewed, had maintained and in many cases improved upon the scores with their gross motor skills. The scores that had been taken in the original study and at their review, were compared to the results taken at a further assessment for this new study. In addition, a questionnaire was sent to all of the parents of the 60 children who had been included in the original study: 53 (88%) of these were returned. Findings from the questionnaire revealed that parents were very positive about their children's progress, especially in relation to the gross motor abilities, self-confidence and social skills. However, some concerns remained about school work, especially mathematics, writing and short term memory. This subject group will continue to be monitored. It is hoped that more long-term data will be obtained and published. The aim will be to confirm that, in the long term, physiotherapy is and remains an extremely effective form of treatment for dyspraxia.

Publication Type: Journal Article

Subject Headings:
Dyspraxia
Motor skills
Child
Physiotherapy
Follow up studies
Self concept
Social adjustment
Memory

Source: AMED

13. Therapeutic electrical stimulation in cerebral palsy: a randomized, controlled, crossover trial

Citation: Developmental Medicine and Child Neurology, September 2001, vol./is. 43/9(609-13), 0012-1622 (2001 Sep)

Author(s): Sommerfelt K; Markestad T; Berg K; Saetesdal I

Language: English

Abstract: The aim of this study was to evaluate the effect of therapeutic electrical stimulation (TES) applied to antagonists of spastic leg muscles on gross motor function in children with spastic diplegic cerebral palsy. Twelve children between 5 and 12 years of age completed a 24-month crossover study in which six were randomly assigned to receive TES for the first 12 months and the remaining six for the last 12 months. Physiotherapy and a home training program were not altered. All were evaluated blindly in terms of tests of motor function and video recordings at the start and at 12 and 24 months. At the end of the study parents/carers gave a subjective assessment of the effect of TES. No significant effect of TES on motor or ambulatory function was found on the blinded evaluation, but parents of 11 of the 12 children stated that TES had a significant effect. We conclude that it is unlikely that TES has a significant effect on motor and ambulatory function in spastic diplegia.

Publication Type: Journal Article

Subject Headings: Electric stimulation
Cerebral palsy
Motor activity
Randomized controlled trials
Therapy
Treatment outcome
Child

Source: AMED

Full Text: Available in *fulltext* at *ProQuest*

14. Potential role of mental practice using motor imagery in neurologic rehabilitation.

Citation: Archives of Physical Medicine & Rehabilitation, 01 August 2001, vol./is. 82/8(1133-1141), 00039993

Author(s): Jackson PL; Lafleur MF; Malouin F; Richards C; Doyon J

Language: English

Abstract: For many patients with damage to the central nervous system (CNS), execution of motor tasks is very difficult, sometimes impossible, even after early participation in an active rehabilitation program. Several investigators have recently proposed that mental practice could be used by these patients as a therapeutic tool to improve their performance of motor functions, yet very little empirical work addresses this issue directly. This article discusses the rationale for investigating mental practice as a means of promoting motor recovery in patients with a neurologic disorder. We first present evidence supporting the existence of a similarity between executed and imagined actions using data from psychophysical, neurophysiologic, and brain imaging studies. This parallel is then extended to the repetition of movements during physical and mental practice of a motor skill. Finally, a new model is proposed to emphasize the key role of motor imagery as an essential process of mental practice, and also to stimulate additional research on this type of training in the rehabilitation of patients with motor impairments of cerebral origin.

Publication Type: journal article

Subject Headings: Motor Skills
Nervous System Diseases
Guided Imagery
Brain

Psychophysiology
Models, Theoretical

Source: CINAHL

15. An evaluation of a conductive education program for adults with neurological disability.

Citation: Physiotherapy Canada, 01 July 2001, vol./is. 53/3(182-189), 03000508

Author(s): Cott CA; Wright FV

Language: English

Abstract: The purpose of this project was to evaluate a Conductive Education Program for adults with neurological disability. The program was 5 days per week for 3 weeks. There were 3 separate 3-week sessions consisting of daily 60-90 minute classes led by trained conductors. Forty-one persons with stroke (n=25), Multiple Sclerosis (MS) (n=11) or other neurological conditions (n=5) participated in the program. A single group, pretest post-test design using a variety of clinical observation and selfreport measures was used. Participants demonstrated statistically significant improvements in balance, distance walked, motor performance and mastery. Improvement in disability approached statistical significance. There were no significant changes in the other measures. A longer, less intensive program may facilitate incorporation of these improvements into functional activities. The results of this evaluation underscore the potential for improvement in adults with chronic neurological impairments who are beyond the traditional rehabilitation phase of their condition.

Publication Type: journal article

Subject Headings:
Nervous System Diseases
Physical Therapy
Motor Skills
Patient Education
Psychomotor Performance
Pretest-Posttest Design
Stroke
Multiple Sclerosis
Center for Epidemiological Studies Depression Scale
Research Instruments
Scales
Descriptive Statistics
Psychological Tests
Analysis of Variance
P-Value
Paired T-Tests
Female
Male
Adult
Middle Age
Aged
Goal Attainment
Fatigue
Funding Source
Human

Source: CINAHL

16. Randomized controlled trial of physiotherapy in 56 children with cerebral palsy followed for 18 months

Citation: Developmental Medicine and Child Neurology, January 2001, vol./is. 43/1(4-15), 0012-1622 (2001 Jan)

Author(s): Bower E; Michell D; Burnett M; Campbell MJ; McLellan DL

Language: English

Abstract: This study aimed to determine whether motor function and performance is better enhanced by intensive physiotherapy or collaborative goal-setting in children with cerebral palsy (CP). Participants were a convenience sample of 56 children with bilateral CP classified at level III or below on the Gross Motor Function Classification System (GMFCS), aged between 3 and 12 years. A 2 x 2 factorial design was used to compare the effects of routine amounts of physiotherapy with intensive amounts, and to compare the use of generalized aims set by the child's physiotherapist with the use of specific, measurable goals negotiated by the child's physiotherapist with each child, carer, and teacher. Following the six-month treatment period there was a further six-month period of observation. Changes in motor function and performance were assessed by a masked assessor using the Gross Motor Function Measure (GMFM) and the Gross Motor Performance Measure (GMPM) at three-month intervals. There was no statistically significant difference in the scores achieved between intensive and routine amounts of therapy or between aim-directed and goal-directed therapy in either function or performance. Inclusion of additional covariates of age and severity levels showed a trend towards a statistically significant difference in children receiving intensive therapy during the treatment period. This advantage declined over the subsequent six months during which therapy had reverted to its usual amount. Differences in goal-setting procedures did not produce any detectable effect on the acquisition of gross motor function or performance.

Publication Type: Journal Article

Subject Headings: Cerebral palsy
Motor skills
Randomized controlled trials
Child
Physiotherapy
Goals

Source: AMED

17. Physiotherapy treatment intensity for a child with cerebral palsy: a single case study

Citation: New Zealand Journal of Physiotherapy, July 2000, vol./is. 28/2(6-12), 0303-7193 (2000 Jul)

Author(s): Mulligan H; Climo K; Hanson C; Manga P

Language: English

Abstract: Traditionally, physiotherapy treatment for children with cerebral palsy (CP) has been offered on a more or less continuous process through childhood. Little research has been conducted on the intensity of treatment in relation to the acquisition of motor skills. This single case design study compared the efect of a conventional longer, less intensive treatment programme with a shorter, more intensive programme. The subject was a three and a half year old child with hemiplegic CP. The conventional treatment programme consisted of one treatment per week for twelve weeks followed by no treatment for eight weeks. The intensive programme consisted of three treatment sessions a week for four weeks. Treatment was carried out by the childd's usual physiotherapist. Motor skill acquisition was measured with the Gross Motor Function Measure (GMFM) before and after each treatment programme. Rate of motor skill acquisition was nearly eight times greater during the intensive therapy period than during the conventional period. Greatest improvements were seen in the child's walking, running and jumping activities as measured by the GMFM. This is the area of the child's development of skills where the majority of treatment goals were set. Because the child's motor skills were not monitored over time following intensive therapy, we were unable to determine if gains made subsequently maintained. Findings from this study lend support to previous studies advocating periods of intensive physiotherapy and contributes to the growing body of research suggesting a review of current delivery of paediatric physiotherapy services for children with CP. Further research is needed to determine whether the gains made with intensive physiotherapy are subsequently maintained.

Publication Type: Journal Article

Subject Headings: Cerebral palsy
Treatment outcome
Motor skills
Child
Physiotherapy
Case report

Source: AMED

18. Strengthening in a therapeutic golf program for individuals following stroke

Citation: Topics in Geriatric Rehabilitation, March 2000, vol./is. 15/3(83-94), 0882-7524 (2000 Mar)

Author(s): Garland SJ

Language: English

Abstract: Stroke can be a devastating event, leaving survivors with residual motor deficits that impact negatively on quality of life. Leisure is the most significant predictor of quality of life in adults with disabilities and is greatly reduced following stroke. Therapeutic Golf is an innovative rehabilitation approach that integrates physiotherapy and golf for individuals following stroke. Therapeutic Golf encourages the learning of a new motor skill and participation in leisure activities. This comprehensive, task-oriented approach may increase motivation to participate and may improve quality of life. This article describes the strengthening component of a Therapeutic Golf program following stroke. A brief review of the muscle groups used during golf and principles for strengthening activities are presented.

Publication Type: Journal Article

Subject Headings: Cerebrovascular disorders
Exercise therapy
Motor skills
Muscle strength
Sports
Physiotherapy
Rehabilitation
Quality of life

Source: AMED

Full Text: Available in *fulltext* at *EBSCO Host*

19. The effect of weighted leg raises on quadriceps strength, EMG parameters and functional activities in people with multiple sclerosis

Citation: Physiotherapy (London), March 1999, vol./is. 85/3(154-61) (1999 Mar)

Author(s): Harvey L; Davies Smith A; Jones R

Language: English

Abstract: Many people with multiple sclerosis (MS) develop muscular weakness and problems with walking, transfers, balance and fatigue. The question often arises whether the type of exercise designed to strengthen muscle in normal subjects is of value in those with MS. In this preliminary study we have compared the effects of no activity with prescribed general physiotherapy exercises or weighted leg raises designed to strengthen the quadriceps. Muscle strength and functional activities such as walking and transferring were evaluated alongside recordings of surface EMG activity in the rectus femoris to determine whether any of the interventions produced functional or physiological changes. There was a trend for the subjects undergoing either exercise prescribed by a physiotherapist or leg raising exercises to improve, while those who did nothing showed little or no improvement. Physiotherapy exercises seemed to produce greater improvements in walking, while leg raising exercise had more influence on transfers. All subjects reported feeling encouraged by contact with researchers, even if no exercise was prescribed.

Publication Type: Journal Article

Subject Headings:
Muscle strength
Multiple sclerosis
Muscle weakness
Exercise testing
Weight bearing
Electromyography
Balance
Motor skills
Exercise therapy
Walking

Source: AMED

Full Text: Available in *fulltext* at *EBSCO Host*

20. Stimulation with low frequency (1.7Hz) transcutaneous electric nerve stimulation (low-TENS) increases motor function of the post-stroke paretic arm

Citation: Scand J Rehabil Med, June 1998, vol./is. 30/2(95-9) (1998 Jun)

Author(s): SOnde L; Gip C; Fernaeus SE; Nilsson CG; Viitanen M

Language: English

Abstract: The object of this study is to determine if the functional motor capacity of the paretic extremity can be improved by stimulation with low intensity low frequency transcutaneous electric nerve stimulation, started 6-12 months after a stroke. 44 patients who had a paretic arm as a consequence of their first stroke were included and randomly assigned to either a treatment group or a control group. Patients in both groups received physiotherapy at a day-care centre, usually twice a week. The treatment group received, in addition, Low-TENS for 60 min, 5 days a week for 3 months. Results showed that motor function increased significantly in the treatment group, compared to controls. The Low-TENS did not decrease either pain or spasticity. It is concluded that stimulation by means of Low-TENS did not decrease either pain or spasticity. It is concluded that stimulation by means of Low-TENS could be a valuable complement to the usual training of arm and hand function in the rehabilitation of stroke patients.

Publisher: Scand J Rehabil Med

Publication Type: Journal Article

Subject Headings:
Transcutaneous electric nerve stimulation
Cerebrovascular disorders
Arm
Paralysis
Rehabilitation
Methods
Motor activity

Source: AMED

21. La natura del difetto motorio nella paralisi flaccida

Citation: Chirurgia del Piede, December 1997, vol./is. 21/3(119-25) (1997 Dec)

Author(s): Ferrari A

Language: Italian

Abstract: English title: 'The nature of motor deficiency in flaccid paralysis.' The author analyses the nature of motor deficiency in flaccid paralysis by examining the signs and symptoms that characterize it and the transformations undergone by the different muscle components. In particular, the author focuses on changes to the contractile, extensoelastic, viscoplastic and thixotropic and hysterical properties. The paper follows the sequence of events leading from intramuscular interventions to intermuscular modifications and subsequently to capsuloligamentous alterations and skeletal deformities. In counterposition to these

contractile activities, the paper also examines the role of stiffness and the mechanical models proposed to reveal its operating mechanism. Lastly, the author examines and compares the proposed methods of treatment: physiotherapy, technical orthopedics and functional orthopedic surgery, which have been presented depending on the different structures of the muscle in question.

Publication Type: Review

Subject Headings:
Motor activity
Paralysis
Muscle spasticity
Foot
Biomechanics
Physiology

Source: AMED

22. Occupational stress and neurological rehabilitation physiotherapists.

Citation: Physiotherapy, 01 November 1996, vol./is. 82/11(606-614), 00319406

Author(s): Broom JP; Williams J

Language: English

Abstract: A qualitative study was undertaken to investigate issues of occupational stress in neurological rehabilitation physiotherapists. Semi-structured interviews were carried out with ten physiotherapists of mixed grade working in three hospitals in one Health District. Stress was found to be a major problem for all the physiotherapists interviewed, affecting both personal well-being and professional performance. The effects of rapid and continuing change in the health service, autocratic management styles, and problems of communication and professional autonomy were all identified as stress factors. The physiotherapists felt stressed in striving to live up to their ideals of the professional role in the face of increasing clinical workloads, a mounting volume of paperwork and diminishing human and material resources. The high standards which physiotherapists set themselves especially compounded these problems, resulting in self-recrimination, frustration and disappointment. The taboo and personal guilt associated with stress were much in evidence: physiotherapists saw stress as a personal weakness and sought solutions first at an individual level. More open management styles, improved communications and better teamwork were also seen as ways to reduce stress, and better on-the-job support for junior staff was considered a priority. Work-based counselling services were however rejected. Promoting the profile of physiotherapy was seen as vital to improve professional status and recognition, with physiotherapists viewing the Chartered Society of Physiotherapy as a catalyst to achieving this.

Publication Type: journal article

Subject Headings:
Stress, Occupational
Physical Therapists
Nervous System Diseases
Interviews
Qualitative Studies
Job Performance
Workload
Physical Therapy Practice
Frustration
Stress Management
Counseling
Teamwork
Human

Source: CINAHL

23. The use of functional activities in therapy: an integration of the principles of motor control and the learning process

Citation: South African Journal of Physiotherapy, May 1996, vol./is. 52/2(33-6) (1996 May)

Author(s): Bakkes ES; Groenewald SJ; Hughes JR

Language: English

Abstract: The successful rehabilitation of a patient following a CVA is largely dependent on the effective relearning of previous motor skills or the learning of new skills. An understanding of the components of motor function and control and the principles of the learning process is therefore essential. Functional activities may be used as an optimal means of combining these principles so as to improve the efficacy of physiotherapy treatment. Two case studies are used to illustrate this approach.

Publication Type: Journal Article

Subject Headings: Learning
Cerebrovascular disorders
Motor skills
Physiotherapy
Physiopathology

Source: AMED

24. A randomised controlled trial of different intensities of physiotherapy and different goal-setting procedures in 44 children with cerebral palsy

Citation: Developmental Medicine and Child Neurology, March 1996, vol./is. 38/3(226-37) (1996 Mar)

Author(s): Bower E; McLellan DL; Arney J; Campbell MJ

Language: English

Publication Type: Journal Article

Subject Headings: Cerebral palsy
Motor skills
Goals
Physiotherapy
Child
Clinical trials
Random allocation

Source: AMED

25. Neurological physiotherapy: a problem-solving approach.

Citation: Neurological physiotherapy: a problem-solving approach., 1996, vol./is. /(0-211),

Author(s): Edwards S

Language: English

Publication Type: book

Subject Headings: Physical Therapy
Nervous System Diseases
Disabled

Source: CINAHL

26. Physiotherapy approaches to the treatment of neurological conditions -- an historical perspective.

Citation: Neurological physiotherapy: a problem-solving approach., 1996, vol./is. /(3-14),

Author(s): Partridge CJ

Language: English

Publication Type: book chapter

Subject Headings: Physical Therapy

Nervous System Diseases
Neuromuscular Diseases

Source: CINAHL

27. A review of neuroplasticity: some implications for physiotherapy in the treatment of lesions of the brain.

Citation: Physiotherapy, 01 October 1993, vol./is. 79/10(699-704), 00319406

Author(s): Stephenson R

Language: English

Abstract: This paper reviews the literature relating to neuroplasticity within the brain and draws implications pertinent to physiotherapy practice. Developmental, functional and post-lesion evidence of neuroplasticity is presented. Using neuroplastic phenomena as a model, physiotherapeutic intervention for sensorimotor deficits following brain lesions is justified and principles of treatment are developed. It is concluded that unilateral compensatory treatments are no longer physiologically justified and that intervention should guide axonal and dendritic development and the "opening up" of the "new pathways." This is facilitated by active patient participation, sensory input and the normality of experience in movement. However, neuroplastic changes can account for "abnormal" tone and physiotherapists are warned that their role includes the minimising of this potential. Also, as reorganisation of the CNS is ongoing, long-term physiotherapy (over many years) can continue to enhance recovery. The author concludes that physiotherapists must justify intervention based upon physiologic evidence and not necessarily on treatment philosophies. An eclectic approach to practice is recommended so that the therapist can utilise all weapons to combat lesion changes.

Publication Type: journal article

Subject Headings: Brain Injuries
Nervous System
Nervous System Diseases
Neuronal Plasticity

Source: CINAHL

28. Management of the physical condition in patients with chronic and severe neurological pathologies.

Citation: Physiotherapy, 01 December 1992, vol./is. 78/12(897-903), 00319406

Author(s): Pope PM

Language: English

Abstract: Those suffering severe and chronic neurological pathologies are a frequently neglected group. This group includes congenital and acquired trauma and disease and results in some of the most profound disabilities. The numbers surviving are increasing and associated secondary complications are common. Treatment of the impairment alone is considered insufficient. A concept of management of the physical condition is proposed, which stresses the importance of the extrinsic biomechanical factors in addition to the intrinsic physiology in the maintenance of physical well-being. This involves management of the person's lifestyle and is by definition a continuing regime. In consequence many of the secondary complications can be alleviated, the care load eased and any remaining ability facilitated. The paper outlines the theoretical basis for the definition of such a regime and the principles incorporated in it. This approach, as opposed to treating the impairment, is believed to be a more efficient and effective use of physiotherapy time, and leads to greater satisfaction all round.

Publication Type: journal article

Subject Headings: Nervous System Diseases
Posture
Patient Positioning
Chronic Disease
Movement Disorders

Middle Age
Male
Female

Source: CINAHL

29. Effect of increased exposure to physiotherapy on skill acquisition of children with cerebral palsy

Citation: Developmental Medicine and Child Neurology, January 1992, vol./is. 34/1(25-39) (1992 Jan)

Author(s): Bower E; McLellan DL

Language: English

Publication Type: Journal Article

Subject Headings: Cerebral palsy
Motor skills
Child
Physiotherapy

Source: AMED

30. The maintenance of sensory motor performance after physiotherapy intervention for minimal neurological dysfunction.

Citation: New Zealand Journal of Physiotherapy, 01 December 1987, vol./is. 15/3(6-8), 03037193

Author(s): Watter P; Bullock MI

Language: English

Publication Type: journal article

Subject Headings: Psychomotor Performance
Physical Therapy
Nervous System Diseases
Child
Human

Source: CINAHL

31. Developmental motor behavior as an integral part of health promotion: a model program.

Citation: Health Values: The Journal of Health Behavior, Education & Promotion, 01 September 1987, vol./is. 11/5(32-38), 01470353

Author(s): Crabtree DA; Wagner DI

Language: English

Publication Type: journal article

Subject Headings: Health Promotion
Nervous System Diseases
Motor Skills
Nervous System Physiology
Curriculum
Research

Source: CINAHL

32. Letter: References on measurement of motor skill acquisition.

Citation: Physical Therapy, February 1974, vol./is. 54/2(177), 0031-9023;0031-9023 (1974 Feb)

Author(s): Andrew PD

Language: English

Country of Publication: UNITED STATES

Publication Type:	Bibliography; Journal Article
Subject Headings:	*Bibliography as Topic Humans *Motor Skills *Nervous System Diseases/rh [Rehabilitation] *Physical Therapy Modalities
Source:	MEDLINE