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Analysis of the ratios of medial-lateral and proximal-distal muscle activities surrounding the hip joint in the step-up and step-down positions

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Background: Many practitioners recommend step up and step down exercises. However, decreased stability of the hip joint and imbalanced muscle activities can alter the biomechanics during these movements.

Objective: This study investigated muscle imbalance between medial and lateral muscle components and between proximal and distal muscle components by expressing the proportions of muscle activation in the step up and step down positions.

Methods: Nineteen (19) subjects participated. Activities of the vastus medialis oblique, vastus lateralis, semitendinosus, biceps femoris, adductor, gluteus medius and gluteus maximus were assessed.

Results: The semitendinosus and biceps femoris ratio was higher in the step down position than in the step up position. The adductor and gluteus medius, adductor and vastus lateralis, an adductor and biceps ratios were higher in the step up position than in the step down position. The gluteus maximus and biceps ratio was greater in the step down position than in the step up position.

Conclusion: Muscle activation in the medial hamstring is greater in the step down position, in the adductor; muscle activation is greater in the step up position. The step down position is more appropriate for those with proximal weakness, which can promote muscle activation in the gluteus maximus while maintaining biceps femoris activation.

Biography

So-Hyun Park has received her Bachelor, Master and PhD degrees in field of Physical Therapy from Daegu University in South Korea. She has worked as a Physical Therapist and Researcher at Kyungpook National University Hospital and Yeungnam University Hospital from 2006 to 2012. Currently she is an Associate Professor of the Yongsan University in South Korea and is a Chief Researcher in government funded project. Her major research interests include the lower extremity biomechanics for knee malalignment syndrome, spinal biomechanics and segmental stabilization and gait and posture, etc.

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The effect of a 12-week long Nordic walking training on a march on treadmill ergospirometry parameters and heart rate in a patient with a cerebral palsy

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Statement of the Problem: The efficiency of walking is often the focus of therapeutic interventions for patients with cerebral palsy (CP) as its decrease has been shown to be predictive of reduced capacity for activity, participation and social interaction. To date, there are some general findings about the effect of Nordic Walking (NW) training, however none of them advocate to patients with CP. The aim of the study was to assess the effect of NW training on a march on treadmill ergospirometry parameters and heart rate in a patient with CP.

Methodology: The studied patient was a 16 years old male with spastic diplegia, with neurological signs in both lower limbs, but without functional involvement of upper limbs and no mental retardations. Five times a week for 12 weeks, the patient performed 40-minutes long NW training. The training was being monitored using application installed on a smartphone and saved on the user account, to which access was allowed to the researchers. The patient underwent the ergospirometry test using the MetaLyzer 3B-R3 device. The measurement was performed twice: Before (PRE training) and after (POST training) the 12-week long training. The obtained values of walking time, maximal walking speed, maximal oxygen consumption; oxygen consumption normalized to patient's body mass; carbon dioxide production, pulmonary ventilation, and a maximal heart rate were analyzed. The differences in studied parameters between the first and the second measurement were expressed in per centers (%).

Findings: The intra-measurement comparison revealed an improvement of studied parameters.

Conclusions: The applied 12-week long NW training improved ergospirometry parameters with HR max remaining on the same level as an effect of positive adaptation to an exercise with higher load. The increase of walking efficiency after application of NW training in CP patients should be studied on a larger sample.

Biography

Andrzej Czamara is an author and co-author of 59 scientific articles. Since 2012, he has been an Associate Professor at College of Physiotherapy in Wrocław, Poland. He is a Specialist in Physiotherapy and runs his private practice as a Physiotherapist. Since 1997, he has been managing the Rehabilitation Centre in Wrocław. He has founded the College of Physiotherapy in Wrocław where he has been an Academic Teacher since 1999. Since 2010, he has been the President of College of Physiotherapy located in Wrocław.

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Association of self-perceived excessive smartphone usage and grip strength among young adults: A preliminary study

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Statement of the Problem: A smart phone is a hand-held & pocket-size device which is used by more than 1.5 billion people around the world. Smartphone addiction magnitude in Indian adolescents ranged from 39% to 44% which may affect interpersonal skills, health risks, harmful psychological effects, restricts their hand function because of the phone design layout. In India, limited studies have been reported on smartphone usage and its effects on musculoskeletal problems

Purpose of the Study: The purpose of the study is to determine the association of self-perceived excessive smartphone usage & grip strength in young adults, and, to determine if there is any difference of grip strength of smart phone used hand.

Methods: In this preliminary cross sectional study, 30 college student volunteers of age 19-29 were selected with convenient sampling and divided into 2 groups (n=15 in each group) as per smartphone addiction score–short version (SAS-SV) with cut off score (Group A = SAS-SV Score > 31/60 for males; >33/60 for females & Group B ≤31/60 for males and <33/60 for females. SAS-SV and hand dynamometer were used once as an outcome measure.

Findings: There was negative association among SAS-SV score and hand dynamometer score in group A ($r=-0.282$) and positive association in group B ($r=0.120$). There was significant association of self-perceived smartphone addiction and SAS-SV score of overall participants ($r=-0.567$, $p=0.001$). There was no significant difference in hand dynamometer score of smart phone used and non-used hand in both the group ($p>0.05$).

Conclusion: The self-perceived excessive smartphone usage is associated with the change in grip strength among young adults. The grip strength of smartphone used hand is not different from the non-used hand.

Biography

Dhwani Deepak Dakoria has joined South Gujarat Medical Education & Research Center, S.P.B. Physiotherapy College, Surat in 2011 and completed her Bachelors in Physiotherapy in 2014. She has worked in various hospitals such as BAPS, Unique, Anand, Mahavir Trauma, Ayurvedic, Harekrishna, Prannath, Love & Care, Nirmal Children's Hospital. Her Internship period spanning 6 months has been recorded at prestigious hospitals such as Shalby Hospitals, Hope Neuro Hospital and Wockhardt Hospitals. She has commenced her Masters in Musculoskeletal Science in Ashok and Rita Patel Institute of Physiotherapy, which is affiliated by CHARUSAT University.

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Influence of wrist and fingers' positions on median nerve distal latency responses within carpal tunnel in healthy subjects

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Background: Hand repetitive occupational motions have been linked with raised incidence of Carpal Tunnel Syndrome (CTS) which is characterized by deterioration of median nerve function. A change in wrist & fingers position has been associated with disruption in median nerve function.

Purpose of Study: The purpose of this study was to investigate the influence of wrist and fingers position on median nerve distal latency responses in healthy subjects.

Subjects: Sixty healthy participants aging between 30 to 50 years from both sexes were randomly assigned into 1 study group.

Methods: Measurements of median nerve motor distal latency using nerve conduction study from neutral wrist, 60° wrist extension and 60° wrist flexion positions, measurements of median nerve sensory distal latency from fingers extension and fingers flexion positions.

Results: Wrist extension was displayed as the most convenient position as it showed significant difference when compared with other wrist positions. Fingers extension position was displayed as the most convenient position as it showed significant difference when compared with fingers flexion position.

Conclusion: Wrist and fingers extension position was the most convenient position for assessment of median nerve. Both sensory and motor distal latencies were optimized in extension position when compared with other wrist & fingers position. Also preventing repeated and prolonged wrist and fingers flexion may reduce risk of carpal tunnel syndrome.

Biography

Ibrahim M Zoheiry has completed his PhD from Faculty of Physical Therapy, Cairo University in 2009 and Masters in Physical Therapy for Burn and Plastic Surgery. Currently he is an Associate Professor at Faculty of Physical Therapy, October 6 University and Chairman of Basic Science Department for Physical Therapy. He has published several papers in reputed journals in addition to various books.

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Effects of the application of physiotherapy in patients with ankylosing spondylitis at the Igalo Institute

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Introduction & Aim: At the Institute for Physical Medicine, Rehabilitation and Rheumatology "Dr Simo Milosevic" in Igalo for 40 years the state program of the Government of Norway has been implemented. The program has been implemented from April to mid-October. In this paper we are going to show the results of the application of physiotherapy skills in maintaining and increasing the mobility of the spine in patients with ankylosing spondylitis. We will show the mobility of the trunk using the standardized measurement method of lateral flexion fully applied by the physiotherapist.

Materials & Methods: Twenty-five (25) physiotherapists employed in kinesiotherapy in the second phase of the Institute Igalo have been applying the method of measuring centimeter tape movement lateral flexion of the trunk in 57 patients (32 men or 56.1% and women and 25 or 43.9%) before the start of rehabilitation and after application of therapeutic procedures. In the first group, from April 25 to May 23, 2016 there were 21 participants (13 men and 8 women), while in the second group from May 23, to June 20, 2016 there were 36 participants (19 men and 17 women). The average age in both groups was 58 years.

Results: After the applied therapeutic procedures, the average increase mobility lateral flexion of the trunk to the right amounted to 4.72 cm, while the average increase mobility lateral flexion of the trunk to the left amounted to 4.94 cm. The results of the application of the T-test for paired samples showed that rehabilitation led to a significant improvement in mobility in lateral angle ($p=0.006$ for the lateral right, $p=0.002$ for the lateral left). Wilcoxon signed rank test also showed a significant change in measures of mobility in lateral flexion of the trunk after rehabilitation in relation to the measures before rehabilitation: For the lateral right $Z=-2.791$, $p=0.005$; for the lateral left $Z=-3.136$, $p=0.002$.

Conclusion: Results from this study indicated that for maintenance and especially for the increased mobility of the spine in the area of the body in patients with ankylosing spondylitis successfully applied various techniques and skills that a good command of physiotherapists of the Institute Igalo. The long tradition of successful treatment of various forms of rheumatoid arthritis puts Institute Igalo in distinctive multi-disciplinary rehabilitation centers in Europe.

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Physiotherapy for low back disorders: What works and why?

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Evidence for the effectiveness of physiotherapy for low back disorders is sparse. Recent trends recommend pain education and a focus on psychosocial rather than pathoanatomical factors. The Specific Treatment of Problems of the Spine (STOPS) trial is a recently published high quality randomized controlled trial of 300 participants receiving individualized physiotherapy or guideline-based advice. The results from pre-planned analyses of the STOPS trial challenge current trends in the management of low back disorders. This presentation will explore the results of the STOPS trial with reference to the current literature on the relative importance of pathoanatomical and psychosocial factors in clinical decision making and predicting future outcomes, selecting the right patient for the right treatment, mechanisms of effect in the STOPS approach, relative cost effectiveness for a more intensive treatment (individualized physiotherapy) compared to advice (which is generally considered to be a low cost and effective intervention), potential misinterpretations of the literature with a particular focus on manual therapy and motor control and rigorous assessment and clinical reasoning as critical components of effective treatment.

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An investigation into two modes of eccentric hamstring training on parameters of strength and fatigue resistance

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Purpose: Despite the high incidence of hamstring strain injuries in several popular sports, definitive research on their causation and prevention is limited. Studies show fatigue and also hamstring eccentric weakness as causes for hamstring injuries. It begs the question “which way may be the best to train hamstrings to prevent injury”.

Methods: Eccentric hamstring peak torque and angle of peak torque were measured using the Kin Com dynamometer at 60° s⁻¹/s (type, 125 AP, Chattanooga, TN, USA) before and after a modified L.I.S.T fatigue protocol. Participants were divided into two groups and underwent four weeks of eccentric hamstring training, then retested. The strength group used Nordic Hamstring Curls and the endurance group used Assisted Nordic Hamstring Curls.

Results: The results showed a significant difference in peak torque in both groups (strength: 0.00, Endurance: 0.01). Both groups did not show a significant difference in angle of peak torque; however the results showed an increase to longer muscle lengths of 18.28% and 26.95% for endurance and strength groups respectively.

Conclusions: The strength training intervention shows the greatest improvement on both peak torque and angle of peak torque.

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A comparative study on quality of life among people living with disability before and after assistive device use

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Introduction & Aim: Disability affects physical health, social relationship of people, life in the realms of family, friends and neighbors, psychological state and level of independence. The consequences of disability can have an impact at personal, interpersonal, family and social levels. This study attempts to compare the QOL (quality of life) among people living with disability before and after assistive device use and other associated factors among them.

Materials & Methods: A longitudinal study was conducted in Bangalore urban district, Karnataka, India from January 2014 to December 2015. A total of 57 disabled persons were included in the study. WHO BREF questionnaire was used to assess QOL of the study participants. Questionnaire was administered on disabled persons prior to assistive device delivery and after six months of use.

Results: The mean age of the respondents was 23.77 ± 17.4 years. There was statistically significant difference between the means in physical and environmental domain of QOL after the intervention. There was no statistically significant difference in QOL before and after the intervention when total scores of all the domains were considered. There was no statistically significant difference in the QOL between different socio economic statuses of the respondents.

Conclusion: After intervention there was statistically significant difference in the better QOL in the physical and environmental domain. QOL was found poor among respondents in the psychological domain as compared to other domains. This could be mainly because of their physical appearance, which makes them refrain from the participation in social gatherings and family functions.

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Post-oncologic rehabilitation: Benefits of an OD triathlon

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Introduction: After their physical rehabilitation, oncologic treated patients have problems to re-integrate in the normal healthy population, due to psycho-social reasons.

Purpose: To improve the state of health and prevent relapse in post-oncologic treated subjects, we introduced an aerobic endurance training program, based on swimming, cycling and running. At the end, they all have to compete in an Olympic Distance (OD) triathlon.

Material & Methods: Twelve former oncologic patients and 12 buddies were selected to enter the training program. Both, patients and buddies, received weekly online and group session training programs in swimming, running and cycling. They all underwent physical testing at the beginning, 4 months and after 8 months of training. We used cycling and running tests to evaluate the physical condition. We also did a subjective quality of life interview after the project. We compared the physical progress of the patients and the buddies, compared data for males and females and evaluated the effect in time.

Results: 22 out of 24 persons ended with success their triathlon after 9 months of training. No significant differences in the measured variables were detected between patient and buddy. There was a significant weight loss, loss in abdominal circumference, reduced sum in skinfold thickness, reduced fat percentage, increased VO₂ max and VO₂ peak, increased Watt max and increased maximal running speed during the project.

Conclusion: There was no significant effect between the oncologic patients group and the buddies for all recorded data. We established a positive change in quality of life. All subjects mentioned that they gained more self-awareness beside the health effect of sport.

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Syndroma lumbale and sporting activity: Cause and effect

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In my speech at the beginning, I will speak about place and importance of lumbar syndrome in sports practice, causes and mechanisms of chronic low back pain, injury characteristics, diagnosis, clinical picture and treatment. Below is a description of the subject of research and analysis of the occurrence of low back pain related to motor activity in football and volleyball team Serbia, as well as lumbar syndrome occurs as a disease of 21st century. The aim of the research will be testing the percentage of patients with chronic low back pain in football and volleyball team Serbia, systematization and presentation of new scientific knowledge in this field, as well as the formation of recommendations. The final presentation will be presented with pictures, que graphs and images. Expectations are two research processes, talking with fitness coach women's volleyball team Serbia, Vanja Banković, who will say what the situation is with a back injury in volleyball players, and surveys will be carried out in famous football clubs from Serbia, in women's volleyball clubs Serbia and Serbian women's volleyball team. The results will be systematically exposed and presented in tables and charts, with standard descriptive statistical methods. At the end of the presentation, the conclusions derived from the research results as well as literature data will also be systematized and there will also be exposure and recommendations regarding the prevention, early diagnosis and proper treatment of lumbar syndrome associated with exercising activity.

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Core stabilization: Key in chronic low back pain

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Objectives: Existing literature lacks adequate studies about core stabilization in low back pain for parameters of range of motion, disability and pain. Moreover this is most ignored treatment aspect in Indian physiotherapy clinics. Our study decides the fate of core stabilization in chronic low back pain and helps to design a more efficient and refined treatment approach for future.

Subjects: 120 subjects (males) ranging 20-40 years equally divided in two groups were included in study. Group-A subjects were treated with hot packs for 20 minutes followed by first grade core stabilization and Group-B subjects were given no treatment.

Methods: Measurements are taken on day 1 and after 6 weeks of treatment control study. Outcomes are assessed on basis of Oswestry Disability Index (ODI), Visual Analogy Scale (VAS) and Lumbar Range of Motion (ROM). Oswestry Disability Index (ODI) is measured as percentage of disability decided by questionnaire. Visual Analogy Scale (VAS) is level of pain calculated by 10 cm line and Lumbar Range of Motion is measured using inch tape method.

Results: Appropriate statistical test are applied using SPSS 12.0.1 software to signify the findings. All three groups show improvement on each parameter studied, yet their level of improvement varies much between experimental & control group. Group-A i.e., core stabilization group shows maximum improvement for all outcome measures of pain, disability and lumbar range of motion. On contrary Group-B shows minimum improvement in all measured parameters.

Conclusion: This study suggests that hot packs followed by core stabilization exercise are most effective in improvement of pain, disability and lumbar range of motion out of all studied treatment parameters. Thus core stabilization should be used as a cardinal approach for an effective treatment of chronic low back pain.

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Reduced lower extremity ranges of motion are risk factors for falls in older women

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Lower extremity range of motion (ROM) reductions with aging are related to limited balance and functional ability. Therefore the aim of this study was to determine whether reduced lower extremity ROMs are risk factors for falls in older women. 81 community dwelling older women (mean age \pm SD, 70.4 \pm 4.6 years) were recruited in this study. Nine lower extremity ROMs, hip flexion, hip extension, hip abduction, hip adduction, hip internal and external rotation, knee flexion, ankle dorsiflexion and ankle plantar flexion, were measured by an examiner. The falls data from the past 12 months were collected via face-to-face interviews with the participants. 29 (35.8%) participants reported falling during the past 12 months. Compared with those who did not fall, fallers displayed reduced hip flexion, hip external rotation and ankle dorsiflexion ROMs. Discriminant function analysis revealed that reduced hip flexion, hip external rotation and ankle dorsiflexion ROMs were significantly and independently associated with falls and that the discriminant function coefficients for these ROMs were hip external rotation>ankle dorsiflexion>hip flexion. This study provides evidence that reduced hip flexion, hip external rotation and ankle dorsiflexion ROMs are important risk factors for falls in older women. The findings of this study may prove useful in a clinical setting to maximize the potential benefit of interventions aimed at reducing and preventing falls.

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Investigation of the impact of sports, exercise and recreation (SER) participation on psychosocial outcomes in a population of veterans with disabilities

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Background: The number of individuals living with some type of disability is increasing at an accelerating rate. The World Health Organization (WHO) estimates that approximately 1 billion people or 15% of the world's population have a disability. According to the Bureau of the Census, nearly one in five individuals in the United States has a disability, making this population the third largest minority in the country. Unfortunately, this number is on the rise due to issues such as an aging population, natural disasters and the wars in Iraq and Afghanistan.

Objective: The aim of this study was to investigate the effects of participation in sports, exercise and recreation (SER) on self-esteem, depression, posttraumatic growth and quality of life (QOL) in veterans with disabilities longitudinally at four time points.

Design: A convenience sample of 163 individuals (91 sports-participants and 72 non-participants) matched on disability type with a variety of disabilities took part in this longitudinal study. Variables of interest were: SER participation vs. non-participation, years of SER participation since onset of disability (less than one year, one to five years, five to ten years, and more than ten years), the type of activity they engaged in (individual activities or a combination of team and individual activities) and time (pre-event, immediately post-event, one month post-event, and three months post-event). Main outcome measures were self-esteem, depression, posttraumatic growth and QOL.

Results: SER participants had significantly higher self-esteem, posttraumatic growth and QOL and significantly lower depression scores than non-participants. There were also significant differences found between the independent variables of: Time, number of years participating in SER since onset of disability and type of activity engaged in and various outcome measures studied.

Conclusions: The results of this study support that participation in SER has positive effects on self-esteem, depression, posttraumatic growth and QOL.

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The effectiveness of visual and auditory sensory inputs in relation to their dominance minimizes early recovery in stroke patients: A randomized controlled trial

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Statement of the Problem: Following a Cerebro-vascular accident, any spontaneous recovery of function that occurs is generally limited to the after 6 months. However, there is a consensus that the current physical therapy intervention not focusing the sensory inputs (visual and auditory) in relation to their dominances. A very few studies conducted to minimize the recovery period using visual and auditory sensory inputs in relation to their dominances, it has been stated that stroke recovers with integrated physical therapy programs but few literatures are available to minimize the recovery periods using visual and auditory signals in relation to their dominances. This research portrays the importance and effectiveness of physical therapy intervention by using visual and auditory sensory inputs through their dominance activates motor area to execute movement and enhance the early recovery in stroke patients. The purpose of this work was to study the advantage of picking up the visual and auditory signals with standard stroke rehabilitation by the concerned dominant hemisphere faster and quicker could be clinically used to minimize the recovery period.

Methodology: The present study was experimental in nature as randomized controlled trail. Total number of 22 subjects was selected as convenient sampling according to the selection criteria. The 22 subjects equally distributed to form an experimental and control groups. Both groups were assessed pre and post intervention using reliable outcome measures and global statistical test used for analysis and for the expected outcomes.

Results: There is significant improvement in s-STREAM score, BBS, MBI and MDGI following intervention in experimental and control groups. Magnitude of improvement between groups shows that experimental group has higher improvements in all the outcome variables.

Conclusions: The results of the study carried out by Jinhwa Jung, et al., correlates well with the present work. Hence it is quite evident that, visual and auditory stimulus in relation to their dominance is superior in improving functional activity and mobility in patients after stroke.

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Tai Chi training improved dual tasking performance in chronic stroke survivors: A randomized controlled trial

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Statement of the Problem: Tai Chi training has been shown to improve dual tasking performance in healthy older adults. This randomized controlled trial is the first study investigating the effects of Tai Chi training on dual tasking performance in chronic stroke survivors and compared with those of conventional exercises.

Methodology: Chronic stroke survivors recruited were randomized into Tai Chi exercise or control groups. Subjects in Tai Chi group were trained with simplified Yang style Tai Chi for 24 sessions, while exercise group received an equivalent amount of conventional exercises. No training was given to controls. Assessments which were conducted before, after and 1 month after the intervention, included auditory Stroop test, turning-while-walking and a dual-tasking test (combination of the two tasks). Outcome measures were composite score for the auditory Stroop test, completion time, turning duration and number of steps to turn for the turning-while-walking test.

Findings: 47 subjects participated in this study (Tai Chi: n=15, exercise: n=17, controls: n=15). No adverse effect related to the training was reported. Composite score in dual tasking significantly improved after intervention ($p=0.044$) and further enhanced in the follow up period ($p=0.014$) in Tai Chi group. The completion time in dual tasking also decreased ($p=0.029$). Significant improvement was found only in single tasking conditions in the exercise group ($p=0.018$) and controls ($p=0.035$). However no significant effect between subjects was found.

Conclusion & Significance: Tai Chi training improved dual tasking performance in chronic stroke survivors, while no such change was found in the exercise and control groups. Tai Chi practice may provide a choice for the rehabilitation of stroke survivors.

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Physiotherapy in treating sexual pain disorders in women: A systematic review

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Statement of the problem: A lot of women suffer from sexual dysfunctions, which most of the times cause pain and discomfort. Many genito-pelvic pain disorders appear in the form of contractions or pelvic floor muscle tension; this makes any type of penetration (sexual, tampons, gynaecological examination tools) impossible. In this condition, a woman cannot control these muscle contractions and experiences moderate to intense pain.

Objectives: Objectives of the study was to summarize the published evidence on the efficacy of physiotherapy for treating female sexual pain disorders, ways to evaluate the condition of a patient and to find the correct treatment.

Findings: Physiotherapy techniques are used to strengthen pelvic floor muscles and relieve pain. Kegel exercises improve the symptoms of sexual pain disorders as they deal with weakened muscles. Vaginal cones exercises are used to strengthen the muscles by means of introduction of gradually increasing weights in the vagina. Biofeedback helps to increase muscle awareness and auto-evaluation of performed exercises. Thermotherapy relaxes muscles and increases elasticity of tissues which helps to reduce pain. Electro-stimulation improves the functionality of muscles. Myofascial therapy consists mainly in manual therapy and in liberating painful trigger points.

Conclusions: The role of pelvic physiotherapy is to solve the problems related to sexual pain, recovering the pelvic floor by increasing muscle awareness and proprioception, improving muscle relaxation, toning the muscles and increasing the elasticity of the tissues in order to eliminate or reduce pain. Different exercise techniques, biofeedback, manual therapy and insertion techniques, as well as electro-stimulation and thermotherapy are used to achieve positive results.

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Psychosocial factors impacting workplace injury rehabilitation: Evaluation of a concise screening tool

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Statement of the Problem: Psychosocial factors have been linked with delayed injury recovery in workplace injuries. Those workplace injuries that are of a pathophysiological minor nature often exhibit prolonged recovery timeframes. Current screening tools to detect those at risk workers are often time consuming for the therapist to implement. With a simple screening tool therapists could quickly and conveniently detect those at risk workers early and tailor their rehabilitation to return the worker to full capacity more expediently.

Purpose: To evaluate whether a new concise screening tool is effective at predicting those workers at risk of delayed injury recovery due to psychosocial factors.

Method: A quick and concise screening tool called the “How are you coping gauge?” (HCG) was developed. This tool was implemented as part of the initial physiotherapy assessment for all new workplace injuries. Participants were excluded if they did not meet the strict criteria used to classify a musculoskeletal injury as simple. The HCG score was then compared to the time taken for the worker to recover. It was hypothesized that those workers indicating a poorer level of workplace and home support would take longer time to recover.

Findings: A sample of 254 participants was included in analysis. Significant correlation ($p < 0.001$) was observed between HCG scores for self-reported work and home support and recovery time thereby confirming the hypothesis. Path analysis found workplace support to be a highly significant moderate-to-strong predictor of recovery time.

Conclusion & Significance: The HCG is an effective tool to quickly and easily identify those workers at risk of delayed injury recovery due to psychosocial factors. Through early detection of at risk workers, rehabilitation can be tailored to mitigate these factors early in the injury recovery process, reducing the time taken for a worker to recover, potentially reducing economic costs.

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