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Abstract 1

PHYSIOTHERAPY STUDENTS' PERSPECTIVE TOWARDS ONLINE STUDY DURING THE COVID 19 PANDEMIC.

Dr. Kamaldeep Jindal, Dr. Manharleen Kaur, Dr. T. Poovishnu Devi, Dr. Chandrakant Patil. ***Krishna college of Physiotherapy,KIMSDU, Karad, Maharashtra, India.***

Background: Physiotherapy students' perspective towards online study during the COVID 19 pandemic Specifically, concerns that screen time negatively impacts psychosocial functioning, health and behavior remain widespread, and are routinely voiced in academic, policy and media circles.

Objectives: The current study aims to evaluate the Physiotherapy student's perspective towards online study during the COVID 19 pandemic.

Methods: Based on eligibility criteria 100 subjects were taken as a sample through purposive sampling and informed consent were taken. Physiotherapy student's perspective towards online study during the COVID 19 pandemic were determined through an edited self-reported questionnaire. The questionnaire is designed to obtain and evaluate the. To analyze the pattern of digital device, use during lockdown. And experiences of online study, to analyze the physically effect on body due to online study impact and to determine if online study have a positive impact. Then data of questionnaire will be collected, compiled and then analyzed.

Result: The finding from our study shows that there was significant positive effect of Physiotherapy students' perspective towards online study during the covid 19 pandemic.

Conclusion: The present study concludes that the physiotherapy students had positive effect on E-Learning and the result was significant.

Keywords: COVID 19, online study, physical and psychological impact.

Abstract 2

EFFECT OF INTERCOSTAL STRETCH VERSUS ON MECHANICALLY VENTILATED PATIENTS VERTEBRAL PRESSURE TECHNIQUE ON VITALS

Dr.Komal Subandh, Dr. Pournima Pawar, Dr. Mukta Deshpande, Dr. T. Poovishnu Devi, Dr. Chandrakant Patil*dr. Subandh K H, Krishna college of Physiotherapy,KIMSDU,Karad, Maharashtra, India.*

Background: In Intensive Care Unit patients who are on mechanical ventilator have reduced excursion of chest, reduced expansion of lungs and reduced activity of respiratory muscles. In mechanically ventilated patient the vitals are unstable.

Objective: To find out effect of Intercostal stretch versus Vertebral Pressure Technique on Heart Rate, Respiratory Rate, SPO2 on mechanically ventilated patients.

Methods and Materials: A study was carried on 30 individuals of mechanically ventilated patient across Multiple Hospitals over Pune to find out effect of Intercostal stretch versus Vertebral Pressure Technique. 30 patients who were admitted in critical care were selected according to inclusive and exclusive criteria.

Results: Our study shows there is significant improvement in the vitals with $p>0.0001$ using vertebral pressure technique as compared to intercostal stretch.

Conclusion: -The present study concludes that vertebral pressure technique in mechanically ventilated patient is more effective than intercostals stretch.

Keywords: Intensive Care Unit, mechanical ventilator, Intercostal stretch, Vertebral Pressure Technique, Heart Rate, Respiratory Rate, SPO2.

Abstract 3

EFFECTS OF AEROBIC EXERCISES ON HOMOCYSTEINE LEVELS (HCY)- NARRATIVE REVIEW

Sadaf Chishty (MPT), Mrs.Varalakshmi (M P T) (Vice Principal), Apollo College of Physiotherapy, Jubilee Hills, Hyderabad, Telangana,500033.

Homocysteine is a non proteinogenicα-amino acid. It is a homologue of the amino acid cysteine differing by an additional methylene bridge (C4H9 NO2S) Normal levels- 5 to 15 µmol/**L**

Action: It is a chemical our body uses to make protein, Vit B6, B12, folic acid breaks down HCY and change it to other substances which body needs. Generally, 70% of HCY circulates in the blood plasma HCY which is bond to plasma protein (albumin) through disulphide link. Others bond to thiols and approximately 1% circulates as free thiol compound.It is not known that which form of HCY is responsible for cardiovascular diseases.Pathophysiology - Homocystinuria: inborn error of metabolism in which concentration of HCY in plasmaurine is profoundly increased about 10 times than normal, which leads to premature thromboembolic disease. Its incidence is 1:200000 population. It's a autosomal recessive trial. Hyperhomocysteinemia (HCY level ≥ 16µmol/L): Due to enzyme inefficiency or nutritional deficiency (Vitamin B6, B12 & folic acid) it leads to premature atherosclerosis. Its mechanism of causing CVD is not defined in detail.

Observations: Some researches show that there is no much significant change in the homocysteine levels after Aerobic Exercise in individuals with sedentary lifestyle but theirBMI improved as HCY levels has positive correlation on waist to hip ratio and waistcircumference, whereas other researches show that there is decrease in homocysteinelevels in those individuals who perform

Aerobic Exercises regularly Regarding this data I have reviewed 10 articles.

Abstract 4

EFFECTIVENESS OF BUTYEKO BREATHING TECHNIQUE ON TEST ANXIETY AMONG COLLEGE STUDENTSA RANDOMIZED CONTROLLED TRIAL

Ms.Gopika Gopakumar ***Medical Trust Institute Of Medical Science Irumpanam, Cochin,682309***

Background And Objectives Anxiety is a common phenomenon that constitutes a universal cause of poor academic performance among students worldwide. It is a kind of self pre occupation which is manifested as minimization and results in negative cognitive evaluation, lack of concentration, and academic failures. The purpose of this study is to find out the effectiveness of Butyeko breathing technique on test anxiety among college students.

Methodology:A total of 16 subjects were selected based on inclusion and exclusion criteria, then divided in to two groups. Group A(Experimental) received both Buteyko breathing technique and Anulom vilom pranayama, Group B (control) received Anulomvilom pranayama. Exercise program was held for five days a week (30 minutes) for 4 weeks. Test anxiety, FEV1 and quality of life were measured at the beginning and fourth week after intervention using west side test anxiety scale 9 , PFT and SF36.

Results In the paired t test , test anxiety, Pulmonary function test and quality of life expressed significant Improvement within the group. Where as in unpaired t test, test anxiety and mental component score of quality of life expressed significant improvement in the experiment group than control group.

Conclusion The study concluded that Buteyko breathing significantly reduce the level antianxiety in experimental group.

Abstract 5

"WONDERS OF WALK TEST IN COVID-19" –A EVIEW LITERATURE

Shruti Sri B.C Mrs. S. Sridevi Sri Ramachandra Institute of Higher Education and Research, Chennai.

The main objective of this study is to determine the implication of a six-minute walk test in deciding oxygen supplementation, discharge planning and exercise prescription for Covid-19 patients. Background: Six-minute Walk test is a simple, valid, reliable submaximal test done to measure functional capacity with moderately impaired individuals.The Global community faced a serious threat in the form of Novel Corona virus Covid 19 leading to moderate to severe impairment. The purpose of this scoping review is to map the literature on a six-minute walk test for covid-19 patients with specific outcomes. Methods: A Boolean search of relevant literature included databases PubMed, Science Direct, PEDRO, Google Scholar with key terms Covid - 19, Six-minute walk test, oxygen supplementation, exercise prescription was done. Full articles published between 2020-2021, meeting the relevance and specific objectives of the study were retrieved and analyzed. Results and conclusion: A total of 10 studies were included. The majority of studies were Prospective Cohort studies,5 was on Oxygen supplementation,4 on exercise prescription and one on discharge planning. The potential uses of the six-minute walk test were established along with its association in the prescription of the exercise program, oxygen supplementation, discharge planning measure for a Covid-19 patients. The simplicity, improvement of margin of safety and prompting early intervention make this test an important tool in COVID 19 patient management. Clinical implications: Physiotherapy practice should routinely include 6 Minute Walk Test Keywords: Six-minute walk test, Covid - 19, oxygen supplementation, discharge planning, exercise prescription.

Abstract 6

NORMATIVE VALUES OF Y BALANCE TEST IN COMMUNITY DWELLING ELDERLY

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Background: People with lower-extremity musculoskeletal dysfunctions commonly show an impaired balance. The Y Balance Test (YBT), derived from the Star Excursion Balance Test (SEBT), has been reported to be a valid and reliable measure of dynamic balance furthermore, the results of the YBT have been reported to be related to lower-extremity impairments and to be predictors of injuries. For the application of the YBT in daily clinical practice, reference values are required for an accurate interpretation of the test results. These normative values would be used by clinicians to determine the performance levels of patients. The Y Balance Test (YBT) requires the patient to balance on one leg whilst simultaneously reaching as far as possible with the other leg in three separate directions: anterior, posterolateral, and posteromedial. Objective: To find Normative YBT values in community-dwelling elderly; To compare YBT values in age groups of 60-65years, 65-70years, 70-75 years,75-80 years and >80years in males and females.

Method: Total 200 participants with 20 participants in each age groups were recruited from various communities of Charotar region. After meeting the selection criterion, informed consent was taken. Demographic details, along with the Berg Balance Score and Y-Balance Test were taken**.**

Result: Gender and age-specific reference values were obtained for the right and left sides. Males showed higher YBT composite scores than females.

Conclusion: Gender and age-specific reference values were obtained for the YBT in community-dwelling elderly in the Charotar region. Males performed better than females did in the YBT.

Abstract 7

"EFFECT OF TASK ORIENTED TRAINING ON HAND DEXTERITY, GRIP STRENGTH AND FUNCTION AMONG INSTITUTIONALIZED GERIATRIC POPULATION".

Mrs. Susan Mathews Institute: Medical Trust Institute of Medical Science.Irumpanam, Cochin.

Background and Objectives: Hand is the most active and important part of upper extremity. Hand function decreases with age in both genders especially after the age of 65 years. Task oriented training (TOT) is a treatment approach focused on functional activities of daily life. The purpose of this study is to investigate the effect of TOT on hand dexterity, grip strength and function in geriatric population.

Methodology: Sixteen subjects were selected based on the inclusion and exclusion criteria and assigned into two groups. Group A (experimental) included 9 subjects who received task-oriented training for 4 weeks, three days per week. Group B (control) with 7 subjects were involved in daily activities. Pre and posttestwere assessed using BBT, nine-hole peg board, hand dynamometer and Michigan hand outcome questionnaire. Students t - test was used for the calculation of the results**.**

Result: In the paired t test, gross and fine dexterity, hand grip strength, hand function expressed significant improvement in experimental group whereas control group didn't express any significant changes. In unpaired t test, gross and fine dexterity and hand grip strength expressed significant improvement but hand function didn't express any significant change.

Conclusion: Study concluded that, 4-week TOT program is an effective measure to improve gross and fine dexterity, grip strength in geriatric population. For improvement in hand function, a longer training may be required.

Abstract 8

TOPIC: TASK ORIENTED PROGRESSIVE RESISTANCE TRAINING VERSUS PERTURBATION BASED BALANCE TRAINING TO IMPROVE BALANCE IN ELDERLY PEOPLE- A COMPARATIVE STUDY

K. Anand Babu*, P. Bavatharani*, ** Associate Professor, Sri Venkateshwara College Of Physiotherapy, Ariya, Pondicherry. India. (Corresponding Author) * * BPT Final Year, Sri Venkateshwara College Of Physiotherapy, Ariya, Pondicherry

Background: Falls are a leading cause of injury, hospitalization and even death among older adults. Although various strength and balance exercise interventions have shown moderate reductions in falls incidence among healthy older adults. However, there is mixed evidence for a significant reduction in falls incidence in frail older adults with some of the exercise interventions. This study will find the optimal Balance exercise protocol which will be safe and comfortable to elderly population prevent from fall. Hence this study compare the two most relevant exercises, Task Oriented Progressive Resistance Training and Perturbation based Balance Training to improve significant reduction find out the effect of Task Oriented Progressive Resistance Training to improve balance in elderly people. To find out the effect of Perturbation based Balance Training to improve balance in elderly people to compare the effectiveness of Task Oriented Progressive Resistance Training with Perturbation based Balance Training for the elderly people to improve balance.

Methodology: 30 subjects were assigned to two groups. All the subjects included in informed consent form will be taken from each of the subjects to participation. Instructions are given to the subjects about techniques performed. The subjects were assessed before the treatment and the end of 6 weeks treatment, measurement done by 8

feet timed up and go test and berg balance scale. Group A will do Task Oriented Progressive Resistance Training and Group B will do Perturbation based Balance Training.

Conclusion: This study conclude that the Task Oriented Progressive Resistance Training (group A) shows more significant when compared with Perturbation Based Balance Training (group B) in improving balance in elderly people. **Key Words**: Falls, 8 Feet Timed Up And Go, Berg Balance Scale, Task Oriented Progressive Resistance Training, Perturbation Based Balance Training, Geriatrics.

Abstract 9

A STUDY TO ASSESS THE EFFECTIVENESS OF OTAGO EXERCISE PROGRAMME ON FALL PREVENTION AMONG ELDERLY IN ANANDHAPURAM VILLAGE AT PUDUCHERRY.

Bharaneedharan.T, Mugilan.JProfessor,CollegeofPhysiotherapy, SVCPMSAriyur, Puducherry. BPT Pre Intern, SVCPMSAriyur, Puducherry,

Impact of Otago exercise testing as an intervention on fall prevention among elderly people.

Objective: To find out the impact of Otago exercise testing on the level of balance impairment. Design**:** A experimental study.

Setting: impairment. Design, Puducherry.

Participants: Elderly individuals above the age of 65years, 30 subjects were taken and assessed with (BOOMER) for balance and arm curl test for upper limb and chair stand test for lower limb strength to check the level of balance.

Intervention: Otago exercise programmed, the study duration was 6 weeks, 2 sessions per week lasting for 60minutes**.**

Outcome measure: (BOOMER scale) for balance.

Results: The paired _t 'test data between pre and post intervention among experimental group is (BOOMER scale) TUG test (p< .00001), FR test (< .00001) STEP test (p< .00001) SSEC test (p< .00001) then the control group - B. This shows that the Otago exercise programmed was highly efficient in elderly people

Conclusion: This study concluded that the Otago exercise programmed shows more significant on balance and prevent the risk of fall and re-occurrence of injury in elderly people.

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Abstract 10

EFFECTIVENESS OF OTAGO EXERCISE PROGRAMME VERSUS SQUARE STEPPING EXERCISES ALONG WITH WEIGHTED VEST EXERCISE ON FALL PREVENTION IN ELDERLY POPULATION

Jayadharshini. E DR.MGR Educational and Research institute –

Background: Elderly people report a fall at least once every year of which 20% have critical consequences. Many exercise interventions like balance and strengthening programmed for fall prevention in elderly population, the effective home-based exercise programmed for elderly are less reported in the studies. Therefore, this study was compared for an effective homebased and safe exercise program for fall prevention in the elderly.

Objective: The purpose of this study is to compare the effectiveness of Otago exercise programmed and square stepping exercises along with weighted vest exercises in improving balance and strength on fall prevention in elderly population.

Methodology: 30 elderly subjects were selected based on selection criteria by random sampling method, patients were divided into two groups. Group A ,15 patients performed an Otago balance exercise programmed along with weighted vest exercise. Group B ,15 patients performed square stepping exercise along with weighted vest exercise for the duration of 30 minutes for 4 weeks,3 sessions per week. Subjects were assessed using berg balance score, time up and go, 5XSST after 4 weeks of intervention.

Result: Among both the groups, group A subjects who receives Otago exercise along with weighted vest exercise showed a significant improvement in the post-test mean values ($p \leq 0.001$).

Conclusion: Hence, this study suggests that Otago exercise along with weighted vests exercise can be used as an effective homebased exercise for fall prevention in elderly population**.**

Keywords: Elderly population, Otago Exercise Programmed, Fall prevention, square stepping exercise, weighted vest exercise.

Abstract 11

EFFICACY OF TASK SPECIFIC FUNCTIONAL EXERCISE WITH VISUAL BIOFEEDBACK ON BALANCE AND GAIT IN POST STROKE

Akhil S (Pg Neuro Scholar), Bethany Navajeevan College Of Physiotherapy

Background: The World Health Organization defined stroke as rapidly developed clinical signs of focal (or global) disturbance of cerebral function, lasting more than 24-hours or leading to death, with no apparent cause other than of vascular origin. In human's; Locomotion (ambulation, gait), is integrated action of the joints and muscles function to maintain upright posture and to produce motion of the body as a whole. Balance is our body's ability to stay in control of its movement when placed under stress, balance can be Static or Dynamic. Task-specific exercise is defined as "a training or therapy where patient has to practice context- specific motor tasks and receive some form of feedback; with regards to skill learning, it may be associated with different practice conditions, feedback and conditions of transfer. Visual Biofeedback technology provides visual information about the position of body and limbs in real time.

Objective: To determine the effectiveness of task specific functional exercise with visual biofeedback on improving balance and gait in post-Stroke.

Methodology:52-subjects were randomly allocated into 2-Groups, Group A and B 26 each respectively. Group A received only Conventional Physiotherapy. Group B received Task specific functional exercise with visual bio-feedback and conventional physiotherapy. Total time for the session was 40-50 minutes and continued for four days a week over a period of six-weeks. It is a pre and posttest experimental design. The outcome measures used were Berg Balance Scale (BBS) and timed up and Go Test (TUG)

Result: Group B who received Task specific functional exercise with visual biofeedback and conventional physiotherapy showed an overall improvement in Balance and Gait compared to group A.

Keywords: Post-stroke, Task specific functional Exercise, Visual Biofeedback, Balance, Gait.

Abstract 11

STUDY ON EFFECT OF PILATES EXERCISE ON DYNAMIC BALANCE, GAIT SPEED AND FUNCTIONAL ACTIVITIES IN MCA STROKE SURVIVORS

Treesa Francis Medical Trust Institute of Medical Sciences.

Background And Objectives: Balance impairment is commonly experienced in post stroke survivors. The purpose of study was to analyses the effect of Pilates exercise on dynamic balance, gait speed and functional activities in post stroke survivors.

Methodology :16 subjects were selected based on the basis of inclusion and exclusion criteria, then divided equally into two groups: Group A (Experimental) received Pilates exercise along with conventional treatment and Group B (Control) received conventional treatment. Structured exercise program was held for three days a week (for 60 minutes) for 8 weeks. Dynamic balance, gait speed and functional activities were measured at the beginning and after 8-week intervention using BBS, 10 MWT & FIM.

Results:The results were analyzed using paired and independent t-test. The mean difference of BBS between the two groups shows that the improvement is more significant in experimental group. In gait speed, there is significant difference between pre-test and post test scores in the experimental and control groups but there was no significant difference in post -test scores between the experimental and control groups. In functional activities, although both groups showed improvement, the scores in the experimental group are significantly higher than that of the control group.

Conclusion: The study concluded that, there is improvement in dynamic balance, gait speed and functional activities in experimental as well as in control group.

Abstract 12

TO FIND OUT THE EFFECTIVENESS OF VESTIBULAR ADAPTATION EXERCISES ALONG WITH THE COGNITIVE BEHAVIORAL THERAPY TO IMPROVE THE QUALITY OF LIFE IN PATIENTS WITH VERTIBROBASILAR INSUFFICIENCY

S. SujithaSri venkateswara college of physiotherapy

Background: Vertebrobasilar insufficiency (VBI) is hemodynamic posterior circulation TIA caused by intermittent vertebral artery occlusion induced by head rotation/extension,atherosclerosis,motorvehicle accident,cervical spondylosis and other cervical degenerative discdisease. Frequent symptoms are vertigo,dizziness, diplopia, dysphagia, drop attacks, nausea, vomiting, sensory changes nystagmus.Various physiotherapy approachare cervical manual therapy with soft collar application, vestibular rehabilitation were effective. This study is to find out the effectiveness of vestibular adaptation exercises along with the cognitive behavioral therapy to improve the quality of life in patients with VBI.

Objectives: To find out the effectiveness of vestibular adaptation exercises along with Cognitive behavioral therapy to improve the quality of life in patients with unilateral or bilateral VBI.

Methodology: In this study, 15 patients with unilateral /bilateral VBI were selected based on inclusion/ exclusion criteria and allocated as single quasi-experimental group. They treated with vestibular adaptation exercise 3 sessions per week and Mindfulness based cognitive therapy 6 sessions per week overall treatment lasts for 8 weeks. Level of dizziness and the quality of life assessed by Dizziness

Handicap Inventory (DHI) and cognitive functions assessed by Mini-mental state examination (MMSE) before & after 8 weeks of intervention.

Conclusion: Vestibular adaptation exercise reduces severity of dizziness thereby improvement in QOL. Mindfulness based cognitive therapy improve Level of cognitive functions.

Abstract 13

CROSS-CULTURAL ADAPTATION, TRANSLATION AND VALIDATION OF STROKE IMPACT SCALE 3.0 IN INDIAN TAMIL POPULATION WITH STROKE

Hema Malini.GKMCH institute of health science.

Background: Stroke is the 5th leading cause of DALY in India. About 30% of survivors complain significant impairment and disability which affect their quality of life (QOL). Almost all of the stroke specific QOL scale are in English and was developed in western countries according to their culture which contradicts with Indian culture. Only 18.49% of people speak English in Tamil Nadu and so, it is important to use culturally appropriate scales in colloquial language.

Objective: To cross-culturally adapt and translate the Stroke Impact Scale version 3.0 according to Indian Tamil population and to find out its reliability and validity

Methodology: A cross-sectional study with a purposive sampling technique was conducted at KMCH institute of health sciences, Coimbatore. 50 stroke patients were included and initial assessments with Indian Tamil version of Stroke Impact Scale 3.0 (T-SIS 3.0), RANDsf-36, BI, NIHSS, MMSE and HADS were made. T-SIS 3.0 is assessed again after 7 days

Outcome Measures: T-SIS 3.0, RANDsf-36, MMSE, BI, NIHSS, HADS.

Result: Internal consistency of the SIS 3.0 (Cronbach's α) was obtained; all domains had good co-efficiency, except for strength. Test-retest reliability of SIS 3.0 (ICC) required correlation of the same domain scores obtained on the first and second assessments and they showed good reliability. Concurrent validity (Spearman's rho)

was assessed by correlating T-SIS 3.0 with other scales having similar domains and it had a positive correlation with them.

Conclusion: T-SIS 3.0 showed high reliability and validity. So, it can be used for stroke patients to assess their QOL.

Abstract 14

DEVELOPMENT AND VALIDATION OF A HOME EXERCISE PROGRAM SPECIFIC TO MOTOR SYMPTOMS FOR PERSONS WITH IDIOPATHIC PARKINSON'S DISEASE

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Background: Parkinson'sdisease(PD)isaneurodegenerativedisorderc haracterized primarily by loss of Dopamine neurons in the Substantia Nigra. Symptoms generally develop onone side of the body and progress slowly overyears. Several researchers have shown that exercise plays an important roleinrelievingsufferingand improving QOL asasupplementto drug therapy.Ahome-basedrehabilitationprogramforpatientswith Parkinson'sdiseasehelpedt oimprovemotorperformancecompared topatientswhodidnotexercise.

Objective: TofindouttheRelevanceandEaseofPerformanceofadevelop edHomeExerciseprogramspecifictomotorsymptomsfor personwithidiopathicParkinson'sDisease.

Methodology:over years components with extensive review of literature (development stage). After designing the protocol, five expert's infield of Physiotherapy performed the judgmental process. The process of validation includes rating the exercises in a 4-pointgrading on two parameters namely relevance and ease of performance. Based on expert's inputs, the level of of performance indexandkappavalue wascalculated.

Result: ScaleContent Validity Index (S-CVI) was calculated for Relevance and Ease of performance of Exercise protocol. The results showed that the exercises are relevant but was little difficult to perform by Parkinson's disease patients. In Kappa,valueswerehighin Relevance andmoderate in Ease of performance.

CONCLUSION: The developed Home Exercise Program was highly relevant for persons with idiopathic Parkinson's Disease. TheEaseof Performancecould be improvedbytranslatingprotocol intospecificlocal languages.

Abstract 15

"CIRCUIT TRAINING FOR IMPROVING MOBILITY AND BALANCE IN STROKE PATIENTS: A REVIEW"

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Background: After stroke, people can have difficulty in walking. They may become slower, and able to manage short distances with even requirement of assistance. They may lose balance more easily and be more fatigued. Rehabilitation can help improve walking, but it is hard to access, particularly later after stroke. Circuit class therapy involves working in groups and doing specific class therapyclass therapyaccessible. Objectives: The purpose of this review was to comment on the effectiveness of circuit training on mobility and balance in stroke patient.

Method: For the literature review, we searched in different databases with keywords circuit training, mobility, balance, stroke. Inclusion criteria for studies were interventional studies published in a peer reviewed or scientific journal in English language between 2006 to 2020.

Results: Based on eligibility screening done at two level, 15 matching articles were included for final review to examine the effectiveness and safety of circuit training on mobility and balance in stroke patient. The patient with stroke has a significant improvement in gait after the circuit training. circuit-based exercise presents better effects on gait when compared with conventional intervention. While circuit training is not found superior to conventional therapy for balance among stroke population.

Conclusion: Summary of literatures review shows that the circuit therapy is effective in improving walking ability in people after

stroke, irrespective of phase of stroke duration being early or late. The lower ratio of staff to patients suggests that circuit training can be cheaper and a valuable treatment to intensify physiotherapy for patients with stroke. Considering the positive effect on mobility compared to other interventions, circuit training needs to be incorporated in stroke rehabilitation.

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Abstract 16

THE IMMEDIATE EFFECTS OF SPECIFIC-MYOFASCIAL RELEASE TECHNIQUE VERSUS PROPRIOCEPTIVE NEUROMUSCULAR FACILITATION HOLD-RELAX TECHNIQUE ON HAMSTRING FLEXIBILITY IN SUB-ACUTE AND CHRONIC STROKE PATIENTS – AN EXPERIMENTAL STUDY

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Background: Flexibility is a key component of the physical fitness that enables the person to move smoothly and safely. Studies have shown that any shortening of hamstring group of muscles will lead to altered mobility of the spine & pelvis, also altering the gait of the individual's post-patient.

Methodstudies have proven the positive effect of PNF on lower limb flexibility and the benefit of MFR using tennis ball in post-stroke patients. Comparing the immediate effect of specific-MFR and PNF hold-relax technique on hamstring flexibility in post-stroke patient. Method: Thirty-two post-stroke subjects with mild to moderate hamstring tightness in the age group of 30 -75 years participated in this study. Group A received Specific-MFR in prone position with feet off the end of table for 120 seconds. Group B received PNF Hold-Relax in supine with Hip-knee flexed to 90 degree and then extending the knee till barrier point followed by strong isometric contraction to the hamstrings for 6-10 seconds for 20 repetitions'- &post-treatment popliteal angle was measured using the passive knee extension test.

ResultsSPSS software was used for statistical analysis. The inter-group results were analyzed using the independent sample T test, the results found were considered not significant with p value being **0.2724** suggesting that both the treatment techniques have equal therapeutic effects and thus proving the null hypothesis of the study.

Conclusion According to the therapist either of the techniques can be applied based on patients' level of hamstring tightness.

Abstract 17

EFFECTIVENESS OF MULTIPLE TASK WALKING TRAINING ON COGNITIVE IMPAIRMENT AND QUALITY OF LIFE AMONG TYPE II DIABETES MELLITUS

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Background Of the Study: Mild Cognitive impairment is the major problem of the middle age individuals with type II diabetes mellitus and results in decreased quality of life.So far to my knowledge, there are no studies have been done focusing on the earlier detection and treatment of mild cognitive impairment at early stage among the middle-aged Type II DM population. So, this study was to find out the effect of multiple tasks walking training to improve the cognitive impairment and quality of life among Middle aged population with Type II Diabetes mellitus.

Objectives Of The Study: The objective of the study is to find out the effect of multiple tasks walking training to improve the cognitive impairment and quality of life among Middle aged population with Type II Diabetes mellitus.

Methodology: 20 individuals with 36 -55 yrs. of middle age population were selected based on the inclusion and exclusion criteria. They were randomly selected and placed in single group (Quasi experimental study). Intervention lasted for 3 weeks; alternate days in a week and 30 minutes per day. Cognition and quality of life

was measurement tools were used in MMSE and QOLID questionnaire used after 3 weeks of yrs. this study it is concluded that MTWT has significant effect on improving the Mild Cognitive Improvement and QOL among middle aged population with type II DM

Keywords: Multiple task walking training, Type 2 diabetes mellitus, Quality of life, QOLID, Mini mental score examination.

Abstract 18

PREVALENCE OF MUSCULOSKELETAL DISORDER AMONG NURSES WORKING IN NEW CIVIL HOSPITAL, SURAT: A CROSS SECTIONAL STUDY.

Sandhya, CM Patel College of Physiotherapy, Gandhinagar

Background: Work related musculoskeletal disorders (WMSD) are an important occupational health issue among all health care workers. The nursing profession is a very demanding job, both physically and emotionally however, data on prevalence of musculoskeletal disorders (MSDs)are limited in India. The overburdened health care system of India due to the lack of adequate and skilled medical and paramedical personnel puts additional demands on its human resources. Moreover, majority of the nursing staff in India are females who have added responsibilities of looking after their families, which increases the physical and psychological burden further. Objective: In order to gain an understanding about the prevalence of MSDs, this study was undertaken. Method: We conducted cross sectional survey in random sample of 136 nurses from new civil hospital Surat using Nordic Musculoskeletal Questionnaire.

Abstract 19

PREVALENCE OF LOW BACK PAIN AFTER NORMAL VAGINAL DELIVERY & LOWER SEGMENT CESAREAN SECTION & IMPACT ON QUALITY OF LIFE IN POSTPARTUM WOMEN.

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Background: Postpartum back pain is one of the most common problems of postpartum women in urban and rural areas of India. Problem of back pain in postpartum period is mostly neglected in rural areas than urban areas. The difference in quality of life between urban and rural postpartum women were also neglected in India.

Objectives: The Primary objective of this study is to find out prevalence of low back pain after normal vaginal delivery and Lower segment caesarean section in urban and rural postpartum women. Secondary objective is to find out impact of low back pain on Quality of life in both urban and rural postpartum women.

Methodology: A cross sectional study was carried out on Total 32 postpartum women with age group 20 -35 years. 16 women were selected from rural areas of Mehsana and other 16 women selected from urban areas like Mehsana and Ahmedabad city. The low back pains
was assessed by two outcome measures NPRS and Owelty disability index (ODI). Quality
of life (QOL) was accessed via using SF-36.

Results: The result suggest that there was no significant difference in low back pain for normal vaginal delivery and Lower segment caesarean section in urban postpartum women but in rural postpartum women low back pain is higher in normal vaginal delivery than Lower

segment caesarean section. The Quality of life is more affected in normal vaginal delivery in both urban and rural postpartum women.

Conclusion: Low back pain in postpartum women is higher in normal vaginal delivery than Lower segment caesarean section in rural population but in urban postpartum women, low back pain is equal problem either in case of normal vaginal delivery or Lower segment caesarean section. The quality of life is more affected in normal vaginal delivery in rural and
urban postpartum women

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Abstract 20

A STUDY TO FIND OUT THE EFFECTIVENESS OF MITCHELLS RELAXATION TECHNIQUE ALONG WITH KEGEL EXERCISES IN ALLEVIATING PRIMARY DYSMENORRHEA. Owelty*,

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Background: Dysmenorrhea is a common problem of women of reproductive age. It is profoundly serious which affects the quality of life. Menstrual pain is severe enough to impact daily activities. The cause of due to the excess release of prostaglandins hormone f2x that leads to spasm of the uterus and cause ischemia during menstruation. The Mitchell's relaxation technique and Kegel exercises are having more beneficial effects in primary dysmenorrheal.

Objective: The purpose of this study was to observe the effect of Mitchell's relaxation technique along with Kegel exercises for the subjects with primary dysmenorrhea.

Methods: The study design was an experimental study. 30 females in the age group of 17 to 25 years who fulfilled the selection criteria are selected for study and they were allocated into 2 groups. Group A experimental 15 females were given Mitchell's relaxation technique and Kegel exercises for 6 weeks. Group B control 15 females were given Kegel exercises for 6 weeks. Short Form McGill Pain Questionnaire and Modified Moos Menstrual Distress are used as outcome tool.

Result: Data analysis was done by unpaired t- test and paired t- test between the groups and within the group analysis, respectively and the significance is $P<0.05$. It shows that Group A is more significant than Group B.

Conclusion: The study concludes that in Group A which integrated Mitchell relaxation technique along with Kegel exercise seems to be more effective in alleviating pain and improving quality of life than control group B.

Keywords: Mitchell's relaxation technique, Kegel exercises.

Abstract 21

KNOWLEDGE OF OSTEOPOROSIS IN POSTMENOPAUSAL RURAL WOMEN: A CROSS SECTIONAL STUDY

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Background: Osteoporosis is known to be a major healthcare problem in India with an estimation of 50% of healthy women over 50 years of age having low bone mass. Common fractures, depression, reduced quality of life and increased mortality are associated with the clinical manifestation of the osteoporosis. The knowledge about osteoporosis is must needed to reduce the risk of osteoporosis. Few studies have investigated the knowledge of osteoporosis in different areas with different age group; but none of the study has measured knowledge of osteoporosis among rural postmenopausal females.

Objective: Primary objective is to determine the knowledge of osteoporosis among postmenopausal rural females and secondary objective is to find out the impactful source of knowledge transmission, to create better awareness strategy.

Method: A Cross-sectional study was carried out on 100 post-menopausal women with the age group of 40-60 years in rural area of charotar region. The knowledge was assessed by facts on osteoporosis quiz (FOOQ) in the form of interview.

Result: The mean age of women was 51.4±5.9 years. The majority of them (71%) reported that they are familiar with the osteoporosis. The main source of information regarding osteoporosis was mass media (54%) [including newspaper, television, radio and magazine]. High

caffeine intake and positive family history were identified as risk factors for osteoporosis by a higher percentage of studied women (73% and 85% respectively). However, early menopause and smoking were identified as risk factors by only 36% and 17% respectively. 86% and 46% of studied women had identified the beneficial effect of walking and physical exercise in general**.**

Conclusion: The knowledge of osteoporosis among postmenopausal rural females of charotar region could be considered moderate as regards its risk factors, preventive measures and consequences. Controlling the quality of health information provided through the mass media as well as motivating health care providers to play a role in providing information regarding osteoporosis is recommended.

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Abstract 22

EFFECTIVENESS OF CALISTHENICS AND BREATHING EXERCISE ON PHYSICAL EXERCISE CAPACITY, THORACO-ABDOMINAL EXCURSION AND FLEXIBILITY IN SEDENTARY OVERWEIGHT WOMEN

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Background And Objectives: Overweight and obesity have become a major health problem in both developed and developing countries. The major risk factor for developing over weight and obesity is the sedentary behavior. The physically inactive candidates should need a structured exercise program for improving their overall health and quality of life. The purpose of this study is to find out the effectiveness of low intensity calisthenics and breathing exercise on physical exercise capacity, thoraco-abdominal excursion and flexibility in sedentary overweight women

Methodology:A total of 16 subjects were selected based on the inclusion and exclusion criteria, divided equally into two groups: group A (Experimental Group: n=8) received low intensity calisthenics and breathing exercise and GroupB (Control group: n=8) does not received any form of exercise. Structured exercise program was held for four days a week (for 45 minutes) for 6 weeks using google meet app. Physical exercise capacity, thoraco-abdominal excursion and flexibility were measured at the beginning and sixth week after intervention using 6-minute walk test, cytometry and sit and reach box.

Results: In the paired 't' test Physical exercise capacity, Thoraco-abdominal excursion and Flexibility expressed significant improvement in experimental group. In case of un paired 't' test all the three parameters of the experimental group expressed significant improvement compared to the control group.

Conclusion: The study concluded that, The Experimental group shows significantly higher improvement in all the three parameters when compared to the control group.

Abstract 23

MENOPAUSE KNOWLEDGE AND PRACTICE AMONG MENOPAUSAL WOMEN

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Background: Menopause has a significant effect on women's quality of life. Their health needs change significantly and it is important that women become aware of the new risks they face and that there are options for preventing those risks. Knowledge about menopause might empower women to cope better with the changes.

Objective: To study knowledge and practices related to menopause of menopausal women in Karad.

Materials and Method: A cross sectional study was conducted at gynecology ward of Krishna hospital, Karad for duration of three months. A total of 170 postmenopausal women above 45 years were included using convenient sampling. After taking written consent questionnaire for knowledge and practices of post menopause was administrated and results were collected. Data was analyzed using SPSS version 20.

Result: The mean age of the respondents was 49.2 ± 3.1 years. Almost 80% women had prior knowledge of menopause ($p<0.0001$) while, only 42% were aware about its effect on health ($p<0.355$). Only 10% of women knew about hormone replacement therapy ($p<0.433$). Following menopause 79 % were bothered by its symptoms ($p<0.0004$). Only 25% had consulted a physician for relief of their symptoms ($p<0.0001$).

Conclusion: This study shows that majority of women have knowledge regarding menopause but has poor practice, this can be

improved by educating the women and helping them to develop alternate coping strategies.

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PARENT'S PERCEPTION ON THE AVAILABILITY OF ENVIRONMENTAL FEATURES NEEDED BY CHILDREN WITH CEREBRAL PALSY

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Presenting Author: Kajal Patel 1- Assistant Professor cum Research Fellow; Ashok and Rita Patel Institute of Physiotherapy, Changa, 2 -2 nd Year MPT Student Ashok and Rita Patel Institute of Physiotherapy, Changa

Background: Cerebral palsy is the most common cause some severe physical disability in childhood. According to social model of disability and the International Classification of Functioning, Disability and Health (ICF), both of which reflect on disability to result from the "interaction between a person's intrinsic impairment and their physical, social and attitudinal environment rather than as something that resides in the individual". Due to the complex clinical appearance, individuals with cerebral palsy and their families need corresponding support from the health services, systems, policies, education, and social services with significant economic burden. It is important to know parents' perceptions and needs about surrounding environmental, physical and social attitude towards conditions.

Objective: To determine the availability of environmental features in the physical, social and attitudinal environment of home, school and community for children with cerebral palsy by the parents. Methodology: A search of English language- based literature with relevant search terms using the PubMed, CINHAL, Google Scholar, Cochrane library.

Results: The initial search of database identified 69 publications related to environmental features needed by children with cerebral palsy. As per the eligibility criteria out of these 15 articles were considered for the study. This shows the availability of environmental features in the social, physical and attitudinal environment for the

children with cerebral palsy using ECEQ European Child Environment Questionnaire in European country.

Conclusion: There are few studies which shows that family demands may differ depending on whether their child with CP is self-sufficient or requires physical assistance or other assistive technologies to move. Most of studies on family needs of children with CP were conducted in high income countries while the needs may be expected differently in our context where families live with a differently and has lower education and also socioeconomic status. This finding supports the importance of the environment for children with CP to achieve optimal levels of QoL. Key words: Environmental barrier, Quality of Life, Cerebral Palsy, Children

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TO COMPARE THE EFFECT OF HAND GRIP EXERCISER VS POWER WEB HAND EXERCISER ON GRIP STRENGTH AMONG ADOLESCENT SCHOOL CHILDREN

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Background: Muscle strength is an important component of physical fitness related to health, regardless of age and clinical condition. Adolescents aged 15-17 years using cut-off points for the classification of Hand Grip Strength scores based on beneficial health areas reported a prevalence of low HGS levels at 59% for boys and 47% for girls.

Objectives: To find out the effect of hand grip exerciser on grip strength, To find out the effect of power web exerciser on grip strength and To compare the effect of hand grip exerciser vs power web hand exerciser on grip strength among adolescent school childrenMethods:30 subjects were randomly assigned for the experimental study by the selection criteria and divided into 2 groups: Group-A - Resisted exercise with Hand-gripper and Thera putty & Group-B – Exercise with Power web and Thera putty. The period of intervention was 2 sessions per day for 21 days. The therapy progress was evaluated with Hand held dynamometer pre and post therapy.

Results: Statistical analysis done for two groups with pre-test and post-test values of Hand Grip Strength. In that Group-A right hand (m. d=3.6), left hand (m. d=2.27) showed increase in the HGS than Group-B right hand (m. d=1.8), left hand (m. d=1.4). Both Group-A and B showed significant results.Conclusion:The study was concluded that HGS was increased in both the groups. The HGS was increased more in Group-A than the Group-B. Hence the Hand

Gripper exercise was more effective than the Power Web hand exerciser in improving the HGS in adolescent school children.

Keywords: Hand Gripper, Power web exerciser, Theraputty

Abstract 24

COMBINED EFFECTIVENESS OF KINESIOTAPING ALONG WITH MYOFASCIAL RELEASE TECHNIQUES AND PRE-NATAL EXERCISES IN REDUCING PAIN AND DISABILITY AMONG PREGNANT WOMEN WITH LOW BACK PAIN.

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Introduction: Low back pain (LBP) in pregnancy is defined as pain occurring below the ribs, but above the gluteal folds, with or without radiation into the legs. Pregnancy related low back pain may be a common problem during pregnancy. Current theories suggest that the symptoms might also be related to alterations in posture during pregnancy, increases in weight and instability of pelvis due to hormonal changes.. Myofascial release therapy is one of the best in reducing pain in the lower back region. Fascial release techniques release fascial restrictions which in turn reduce the muscle tightness. Myofascial release is a well-known term for manual remedy strategies applied through pressing muscle and fascia. Fascia is described as a fibrous-colloidal tissue that forms part of body's pressure force transmission system.. Hence the need for further research in alleviating pregnancy related symptoms and improving the quality of life among pregnant women.

Objectives Of The Study: To determine the combined effectiveness of Kinesio taping, Myofascial Release and pre-natal exercises on pregnant women with low back pain. To determine the combined effectiveness of Kinesio taping, Myofascial Release and pre-natal exercises on pregnant women with low back disability. To determine the effectiveness of pre-natal exercises on pregnant women with low

back pain. To determine the effectiveness of pre-natal exercises on pregnant women with low back disability.

Methodology: Based on the inclusion criteria 30 subjects were included in the study. They were divided in to two groups: GROUP A: Experimental group. GROUP B: Control group. GROUP A: Group A was subjected to Kinesio-taping, myofascial release technique and pre-natal exercises. A brief introduction about the application techniques of Kinesio-taping, myofascial release technique was given either manually and self to participants.. Group A received Kinesio-taping replaced every 3 days for 4 weeks, myofascial release techniques will be given at a frequency of 3 times/week for a duration of 15 minutes for 4 weeks. The total duration of the treatment programmed was 45-60 minutes. The total study duration was for 4 weeks. GROUP B: Group B was subjected to pre-natal exercises, postural awareness and an education programmed on pregnancy-related low back pain prevention and control. A brief guideline on the prenatal exercise protocols were explained to Group B. Pre-natal exercises were given for a duration of 30 minutes with adequate rest intervals. The exercises given were same as given for Group A. An education on postural awareness was also be taught to Group B for a duration of 10-15minutes. Also, an oral guidance on low back pain prevention and control, education on pregnancy-related low back pain was given for Group B for a duration of 10-15minutes. The frequency of pre-natal exercises was 3times/week for 4 weeks

Results: Based on the statistical analysis, the result of the present study showed that there is statistically significant difference between pain and disability for pre-test and post-test in both experimental and control group. Experimental group showed greater improvement in pain and disability while measuring pain using VAS and disability using RMDQ than the control group with women suffering from low back pain in pregnancy.

Conclusion: Kinescoping along with myofascial release techniques and pre-natal exercises is effective in reducing pain and disability among pregnant women with Low Back Pain. **Key Words** Kinescoping, Myofascial release

Abstract 25

UNDERSTANDING CONSTRAINTS AND BARRIERS TO SPORTS PARTICIPATION AMONGST UNIVERSITY FEMALES

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Background: Sports and physical activity has been proven to be beneficial in various aspects of females like physical, psychological and social health. Overseeing these benefits there is continues low ratio of female sports participation compared to male which is influenced by perception of females and social barriers. Factors like patriarchal monopoly and bias, stereotyping and rewarding nature of the society have been frequently cited as precursors to non-participation. However, most of these factors are typically understood from perspective of women participation in professional sports. Scientific interest into studying female participation in university games or sports for recreational or fitness purposes has been an understudied phenomenon.

Objectives: The purpose of the study is to identify the constraints and barriers that prohibits young female from sports activity participation.

Method: A sample of 200 university females aged between 18 to 25 years were taken as per our inclusion criteria, they were divided into sports participant and non-participant groups. Data was collected by developed well designed survey questionnaire from different universities.

Results: Apart from college hours most of the participants spare the leisure time in socialize with friends (68.5%) followed by college work (53.5%). Among all of our participants 53% of our participants

spend averagely 5 to 7 hours per week in sports activity followed by 29% spend 8 to 10 hours for the same. We have assessed the constraints and barriers that prohibited from sports participants.

Conclusion: Majority of female are replied no to discourage by their family members in sports participation. We found some prohibited factors from participation in sports that includes too much academic work (34%), afraid of getting hurt (23%) followed by poor facilities for participation (18%). The beliefs of regular participants, they have enjoyed by participation (96%), know the benefits of participation (92%) followed by it reduced stress (87%).

Abstract 26

COMPARISION OF HAND GRIP STRENGTH AND HAND ARM ANTHROPOMETRIC MEASURES AMONG VOLLEYBALL AND BASKETBALL PLAYERS

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Background: In sport like volleyball and basketball the longer the finger the better the accuracy of shot or throw along with the grip. All shots and throw are finished with the wrist and fingers. It has been suggested that players with longer finger and larger hand surfaces have stronger grip power. Many researches have examined different factors and anthropometric variables that explained this issue. To our knowledge, the data availability is poor. Objective:1. To assess the strength of hand grip strength among volleyball and basketball players.2. To assess hand anthropometric variables among volleyball and basketball players.3. To compare hand grip strength among volleyball and Basketball players.

Method: A Cross Sectional study design was conducted at the sport ground. A total 60 no of players (n=30 volleyball and n=30 basketball) were taken for study based on inclusion criteria. Hand-arm Anthropometric measure were used to measure the components of arm; hand and finger length along with that grip strength were used. Descriptive analysis, Correlation analysis of hand grip strength and anthropometric variables performed using Pearson correlation analysis. Grip strength of both groups was done using t-test.

Result: There is a major difference (MD=3.63) seen among volleyball and basketball players. The hand grip strength in basketball players is greater (p=0.021) than those of volleyball players. The finger span, finger length and perimeter show significant correlation($p<0.05$) between basketball and volleyball players

Conclusion: This study concludes that the strength among basketball players is comparatively higher than those of volleyball players. There is significant association is seen between grip strength and finger span and hand perimeter.

Abstract 27

"EFFECTIVENESS OF HIGH INTENSITY INTERVAL TRAINING ON THE STRENGTH OF SCAPULOHUMERAL MUSCLES AND ABDOMINALS IN MALE CRICKET BOWLERS (PACE)"

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Objective: The main objective of this study was to find out the effectiveness of High Intensity Interval Training to strengthen the scapulohumeral muscles and abdominals in male cricket bowlers (pace).

Background Of The Study: Cricket is a sportive modality that requires strength in the upper and lower extremities along with the trunk musculature. Lack of strength and flexibility in the core, shoulders, and legs can lead to poor form in the athlete's resulting in injury. High Intensity Interval Training (HIIT) is considered optimal workout to improve both metabolic and cardiovascular functions in athletes even without previous experience.

Methodology: This was an experimental study in which 40 experienced cricket bowlers from Dr. M. G. R. Educational and Research Institute were selected between age 18 to 25 with normal BMI. The players were further divided into two groups by simple convenient sampling method with 20 players in each group.

Procedure: After complete explanation about the study an informed consent form was signed and by the players before the commencement of the training program. Group A was the experiment group and Group B was the control group. Both the groups underwent High Intensity Interval Training for a period of 12 weeks with 4

sessions per week. The outcome measure used was 1 RM test for scapulohumeral muscles and the abdominals.

Result: The study revealed that HIIT had a greater improvement on the strength of scapulohumeral muscles and the abdominal muscles showing highly significant difference in post-test mean value ($P \leq 0.001$).

Conclusion: The study concluded that the High Intensity Interval Training given for male cricket bowlers (pace) were effective in improving the strength of the scapulohumeral muscles and the abdominals after 12 weeks of intervention in the subjects of both the groups.

Keywords;Cricket bowlers (pace), High Intensity Interval Training (HIIT), Scapulohumeral Muscles, Abdominals, 1RM test

Abstract 28

"EFFICACYOFSINGLETASKVERSUS DUALTASKTRAININGONBALANCEANDFUNCTIONALPERFORMANCEINFOOTBALLPLAYERSWITH FUNCTIONALANKLEINSTABILITY"

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Objective: Thepurposeofthisstudyistocomparetheefficacyofsingletask anddualtaskTraining onbalanceandfunctional performanceinfootballplayerswithfunctionalankleinstability.

Materials And Methods: Itisanexperimental study, Comparative pre-andpost-testtype.30 male subjects with functionalankle instabilityand who have scored less than 25 in CAIT questionnaire was randomly dividedintotwogroups.GroupA(n)=15subjectsreceivedsingletask trainingonanunstablesurface.GroupB(n)=15subjects received dual tasktrainingonanunstable surface.Boththegroupwereperformed4setof strengthening exercisefor20mins.BalanceError ScoringSystem (BESS)forbalance,Figure-of-eight hop test & Square hop test for functionalPerformance was usedasan outcome measurement. The subjectswere trained for4weeks(5days Perweek)andthestudywasconductedatfacultyof Physiotherapy,Dr.MGREducationaland ResearchInstitute

Result: Thestudyrevealedthatdualtasktrainingadagreaterimprovementi nbalance(balance Errorscoringsystem)andfunctionalperformance(figureof 8hop test and square hop test) than singletasktrainingandalsoshowshighlysignificantdifferenceinpost-test mean values (P≤0.001).

Conclusion: Thepresentstudyconcludedthatashort-term interventionofbothsingletasktraininganddualtasktrainingwereeffectivei nimprovingbalanceandfunctionalperformancein football playerswithfunctionalankleinstability.Whenthetwogroupswerecompar ed,Dualtask trainingshowedmoreimprovementinbalanceandfunctionalperformance infootballplayerswith functionalankleinstability.Hence,thisstudysuggestthatdualtasktrainingi mprovebalanceand functionalperformanceinathleteswithankleinstability.

Keywords: Singletask,dualtask,ankleinstability,Balanceerrorscoringsy stem,figureof-8-hop test,squarehoptest.

Abstract 29

EFFECTIVENESSS OF PERTURBATION TRAINING USING ROCKER BOARD ON BALANCE ANDFUNCTIONAL ACTIVITIES AMONG FOOTBALLPLAYERS WITH CHRONIC ANKLE INSTABILITY"

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Background: Chronic ankle instability (CAI) is one of the most common causes of recurrent lateral ankle sprain. In India prevalence of CAI (>25%) occur soon after 70% of initial ankle sprain among the athletes. Main reason for CAI is mechanical or functional insufficiency such as joint laxity, changes in synovial and joint motion in talocrural joint along with peroneal muscle weakness. To improve proprioception and dynamic balance this study focusses on perturbation training using rocker board among football players with chronic ankle instability.

Objective: The objective of the study to find the effectiveness of perturbation training using rocker board among football players with chronic ankle instability.

Methods: The study design was an experimental study. 30 football players were selected from Indira Gandhi Stadium based on inclusion criteria. Subjects were divided into Group A &B. Group A were performing perturbation training using rocker board with warm up

exercises and Group B performing warm up exercises, 4 weeks of training for each group 3 days a week. The outcome measures, (SEBT for dynamic balance) and (FAAM for functional activities) is taken after 4 weeks of treatment for further changes in improvement. **Results:** The result of the study showed that Group A is significant than Group B with p (<0.05) in improving dynamic balance in football players with Star Excursion Balance Test and functional activities (FAAM) than Group B.

Conclusion: This study concluded that giving perturbation training using rocker board along with warm up exercise for group A is significant in improving dynamic balance and functional abilities than group B.

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Abstract 30

EFFECTIVENESS OF BOSU BALL TRAINING ALONG WITH TRAMPOLINE TRAINING ON JUMPING PERFORMANCE AND BALANCE AMONG BASKETBALL PLAYERS.

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Background: Balance and jumping performance are the most common problem seen among the basketball players. There are many numbers of training protocols to improve balance and jumping performance among basketball players, on which bosu ball and trampoline training are least commonly used protocol to train the basketball players. So, this study is to find the effectiveness of Bosu Ball along with Trampoline training on jumping performance and balance among basketball player.

Method: The study design was an experimental study, 30 female basketball players were selected from Indhra Gandhi stadium (Magic club Pondicherry), They were allocated divided into two groups, Group A (n=15) Bosu Ball and Trampoline Training; Group B (n=15) Trampoline Training alone, 3 sessions in a week for 6 weeks, The outcome measure Y Balance Test (YBT), Vertical jump test (VJT) were measured in pre and post 6-week period of training.

Results: The YBT and VJT group analysis shows experimental group very significant than control group with the t value of (anterior 3.645, posterolateral 3.621, posteromedial 8.242 and 6.87) since p value is ($p<0.001$)

Conclusion: This study concludes that the Bosu Ball along with Trampoline Training (Group-A) shows more significant improvement in balance and jumping performance in basketball players when compared with conventional treatment (Group –B)KEY WORDS: Bosu Ball, Trampoline, Balance, Jump, Y Balance Test and Vertical Jump Test

Abstract 31

A STUDY TO COMPARE THE EFFECT OF DERBY SHOULDER INSTABILITY REHABILITATION PROGRAM AND THERABAND EXERCISES ON SHOULDER INSTABILITY AMONG RIFLE SHOOTERS

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Background: Rifle shooters are mainly focuses on their training. Their major goal is to improve the performance and shoulder instability helps to coordinate several components such as accuracy, precession and speed of shooting. It is already proven that Rifle shooting produce sudden counterforce against the body through the anterior shoulder this result a traumatic injury in shooters which leads to shoulder instability. Hence this study is to improves the shoulder instability performance by administer the derby shoulder instability rehabilitation program and TheraBand exercise in Rifle shooters.

Objective Of The Study: To compare the effectiveness of Derby shoulder instability rehabilitation program and TheraBand exercises on shoulder instability among Rifle shooters

Method: The study design was a comparative study. 30 healthy Rifle shooters were selected from Pondicherry Rifle shooting association. They were allocated divided into two groups. Group A performed by Derby shoulder instability rehabilitation program and Group B performed TheraBand exercise, 6 days per week for 4 weeks. The outcome measure, (WOSI, and MST) was measured in pre and posttest for 4week periods.

Results: Data analysis was done by unpaired "t" test and paired "t" test for the between group and within the group analysis respectively. The statistical analysis done with unpaired" test within the Group A and Group B analysis shows significance ($p<0.05$).

Conclusion: This study conclude that the derby shoulder instability rehabilitation program (Group-A) shows more significant improvement in shoulder instability among Rifle shooters when compared with TheraBand exercise (Group-B)**keywords:** Rifle shooters, derby shoulder rehabilitations program, TheraBand exercise, WOSI, MST.

Abstract 32

EFFECTIVENESS OF HAMSTRING STRETCHING VERSUS GLUTEAL MUSCLES STRENGTHENING IN PLANTAR FASCIITIS

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Background: Plantar fasciitis is a common and disabling condition with prevalence of 9.6% in general population. Risk factors for plantar fasciitis include overweight, pronated foot, limited dorsiflexion, long standing, sports involving running and long walking. Previous studies have established a relation of plantar fasciitis with hamstring tightness and gluteal muscle weakness. So, treating these muscles along with conservative treatment might help patient in alleviating pain and improving functional ability. Aims and objective: to determine and compare the effect of hamstring stretching and gluteal muscle strengthening on plantar fasciitis.

Methods: 74 participants were allocated in one of the two groups. Each group had 37 participants. Participants with heel pain with first step in the morning, tenderness to the anterior medial heel, limited dorsiflexion due to pain and aggravation of the pain after long period of upright activity were included in the study. Group A received hamstring stretching with conventional exercise and group B received gluteal muscle strengthening with conventional exercise.

Result: Result showed no significant difference between post VAS score of both groups. Both hamstring stretching and gluteal muscle strengthening were equally effective in alleviating pain. Regarding FAAM score each group shows improvement in post evaluation but gluteal strengthening was more effective in improving functional activity of the participant. ($p<0.0001$)

Conclusion: Both groups show decrease in the VAS score after the intervention and there was no significant difference between both groups. Gluteal muscle strengthening is more effective in improve the functional capacity of the patient than the hamstring stretching.

Key words: Plantar fasciitis, hamstring, gluteal muscles, Stretching, strengthening

Abstract 33

Effects of core muscle training on core endurance and running economy – A non-randomized control trial.

Dr. Siddharth Nitin Kumar Joshi (PhD research scholar of Pauluniversity) Ahmedabad, Gujarat.

Background Effects of core muscle training on core endurance and running economy – A non-randomized control trial. **Objective** - The purpose of this study was to examine the effects of 8-week core training on core endurance and running economy in college athletes.

Methodology – Forty-eight male college athletes were randomly divided into 2 groups: a control group (CON) (n = 25) and a core training group (CT) (n = 23). Both groups maintained their regular training, whereas CT attended 3 extra core training sessions per week for 8 weeks. The participants were assessed before and after the training program using sensory organization test (SOT), sport-specific endurance plank test (SEPT) and 4-stage treadmill incremental running test (TIRT).

Results - Compared with the pre-test, significant improvements were observed in post-test SOT (78.8 ± 4.8 vs. 85.3 ± 4.8, p = 0.012) and SEPT (193.5 ± 71.9 s vs. 241.5 ± 98.9 s, p = 0.001) performances only in CT. In the TIRT, the post-test heart rate values were lower than the pre-test values in CT in the first 3 stages. In stage 4, the post-test oxygen consumption (VO2) was lower than that in pre-test in CT (VO2: 52.4 ± 3.5 vs. 50.0 ± 2.9 ml/kg/min, p = 0.019).

Conclusion – the study concluded that 8-week core training may improve static balance, core endurance, and running economy in college athletes.

Abstract 34

Effect of Relaxation Technique on Depression, Anxiety and stress Among Physiotherapy students- A Pilot Study

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Introduction: Stress, anxiety and depression are inevitable in Physiotherapy education. The objectives of the present study were to evaluate effect of relaxation technique on stress, anxiety, and depression, perceived academic stress and quality of life among physiotherapy students.

Methodology: Survey was done to evaluate level of stress, anxiety, and depression for 40 participants. 10 participants were found to have mild, moderate stress, anxiety, and depression. Pre-intervention DASS21, Perception of Academic Stress Scale (PAS) and WHOQOL-BREF Questionnaires were taken. Participants were divided into two groups. Group-1 Treatment group N=5. Group-2 Control group N=5. Group-1 was assigned Jacobson's progressive relaxation exercise and savasana 3 times/week for five weeks. Group 2 was assigned savasana for 10-15 mins for 3 times/week for five weeks. Parameters like HR (Heart Rate), SBP (Systolic Blood Pressure), and DBP (Diastolic Blood Pressure), Temperature before and after treatment was checked for 15 sessions for both groups. Post-intervention DASS21, Perception of Academic Stress Scale and WHOQOL-BREF Questionnaires were taken.

Results: Significant decrease in HR, SBP was found in both the groups, PAS, DASS 21 scores decreased in both the groups and WHOQOL BREF score was found to be more significant in interventional group.

Conclusion: Savasana and Jacobson's Progressive relaxation exercise both were effective in reducing stress, anxiety and depression and Academic stress and to improve Quality of life, but Jacobson's progressive relaxation exercise was more effective in improving all parameters of QOL.

Keywords: Stress, Anxiety, Depression, PAS scale, DASS scale, Savasana, WHOQOL BREF

Abstract 35

"THERAPEUTIC AND ORTHOTIC EFFECTS OF FUNCTIONAL ELECTRICAL STIMULATION FOR LOWER LIMB AFTER STROKE"– A SCOPING REVIEW

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Background: Stroke is one of the leading causes of disability in India. The loss or difficulty with ambulation is one of the most devastating sequelae of stroke, and so restoration of gait and gait-related tasks is often one of the primary goals of rehabilitation. FES usually refers to the process of pairing the electrical stimulation with a functional task as initially described by Moe and Post. Objective: To examine the extent and type of highest evidence available for the effects of Functional electrical stimulation on lower limb motor functions after stroke

Methodology:This scoping review was conducted based on the methodology proposed by Arksey and O'Malley also incorporating the PRISMA SCRA Checklist. Data was extracted by searching the electronic databases between 1990 and December 2020 using search terms and selection criteria. The Quality of the knowledge synthesis methods was appraised using the AMSTAR tool to assess the methodological quality of systematic reviews of RCTs. Data abstraction was done on article characteristics (e.g., country of origin, No of RCT included), Population characteristics, Intervention and Outcome measures, Cost effectiveness, safety and adherence. Data Charts were developed on other key information like type of FES, Dosage Parameters, Muscles stimulated, Channels used, Functions trained, Follow up ,Carry over effect and any adverse events

Results: Seven meta-analysis studies including 101 trials with 3857 subjects found the combination of FES and a conventional rehabilitation program to have a positive therapeutic effect on the improvements in spasticity, recovery of gait, motor function, energy expenditure, and functional ability in mostly chronic stroke patients. Studies found AFOs to have positive combined-orthotic effects on walking that are equivalent to FES for foot-drop caused by stroke. Interestingly two meta-analyses studied the effect of FES Cycling on lower limb performance and showed promising effects.

Conclusion: Evidence suggests that FES is effective at improving gait speed in subjects post stroke. More research gaps were found and it is necessary to determine the critical timing, dosages of various patterns, channels and novel types of FES in future.

Abstract 36

EFFECT OF THERAPEUTIC EXERCISES ON WALKING CAPACITY IN COPD.

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Background: The individuals with COPD have skeletal muscle dysfunction, decrease muscle mass in thighs and muscle strength. Pulmonary rehabilitation- improves exercise tolerance, muscle strength, quality of life. Closed kinematic chain exercise improves quadriceps Femoris strength which is the main muscle affected in COPD.

Objective: To find out effect of therapeutic exercises with Pulmonary rehabilitation on walking capacity in COPD. Methods: Ethical clearance was taken from institutional ethical committee. A randomized control trial was conducted in 30 individuals diagnosed with COPD. Group A - with pulmonary rehabilitation and low intensity exercises. Group B- pulmonary rehabilitation. Treatment duration: 12 weeks(3 times a week).low intensity closed kinematic chain exercise. Leg press, stair climbing activity- (initially without resistance later followed by resistance), squatting.

Results- The results suggest that Therapeutic exercises with pulmonary rehabilitation was better than pulmonary rehabilitation alone in improving walking endurance and rate of perceivedexertions. Adding low intensity ckc exercises improves the functional outcome in copd. The six-minute walk distance improved statistically significantly in Group A as compared to Group B(p=0.1832).

Conclusion: Adding therapeutic exercises with pulmonary rehabilitation improves the walking distance in COPD. Keywords**:**

COPD, Therapeutic exercises, pulmonary rehabilitation, six-minute walk test.

Abstract 37

COMPARISON OF TWO DIFFERENT APPROACHES ON PAIN AND DISABILITY AMONG PERIARTHRITIS SHOULDER.

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Objective: To investigate whether Tactile Discrimination and Graded Motor Imagery would reduce pain and disability among Periarthritis Shoulder patients.

Background: Periarthritis shoulder is a common treatable condition with a lifetime prevalence of 2-5% (general population) and was found to affect 8.2%(men),10.1%(women). Aggressive physical therapy in freezing stage of PA shoulder may delay recovery but Central sensitization play important role during early stages. Graded motor imagery (GMI) has been used in number of conditions with central sensitization. It's a process of training of brain away from pain by using specific imagery in cases of complex pain, movement restriction. Tactile discrimination is ability to differentiate information through the sense of touch.

Method: This is an experimental study of pre and post comparative type. 30 subjects were randomly selected. The study setting was in Physiotherapy outpatient department, A.C.S Medical college and

Hospital. Study duration is about 12 weeks. The inclusion criteria include only PA shoulder patients with restriction of shoulder movements, Age group (40-60), patient with scores of 60-70%(SPAD), 4-6(VAS). The exclusion criteria were uncooperative subject, recent fracture, open wounds. The recruited subjects were allocated into two groups, Group A (Tactile Discrimination), Group B (Graded Motor Imagery Training). The training was given for 3 times18 min\day (Group A), twice/session,3 times/day (Group B) before and at end of training, shoulder pain and disability index score and VAS was assessed as outcome measure**.**

Results: On comparing mean valus of group A, Group for SPADI score there is significant increase in pre-test (63.91) than post-test (64.38) hence null hypothesis is true, for VAS score there is a significant increase in pre-test (5) than post-test (5.2) hence it is statistically highly significant.

Conclusion: Conclusion of this study shows that effectiveness of tactile discrimination, graded motor imagery along with mirror therapy and exercise should be trained to PA shoulder patients, which can be used as simple and cost- effective treatment program in improving tactile, and decrease in pain on shoulder joint. This may help patients improve quality of life by reducing pain when performing activities of daily living.

Abstract 38

EFFECT OF PREOPERATIVE RESPIRATORY MUSCLES TRAINING ON PULMONARY FUNCTION TEST AFTER ABDOMINAL SURGERY:RANDOMISED CONTROLLED TRIAL

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Background & objectives: Abdominal surgeries are the most common operative procedure including a wide range of both emergency and elective surgical interventions. Postoperative Pulmonary complications following upper abdominal surgery are the most common surgical complications. The combined effect of surgical trauma and anesthesia results in reduced lung volumes. The aim of a study was to assess the effect of pre-operative respiratory muscle training on pulmonary function test (PFT) after abdominal surgery.

Methodology: Total number of 104 participants of both the gender with age group between 30 to 70 years, who were planning for major abdominal surgery were to be divided in to two groups i.e., experimental group and control group. The experimental group was to undergo a pre-operative respiratory muscle training and post operatively both groups were to received conventional physiotherapy treatment. All the participants were assessed for PFT at the baseline, before surgery, at 3rd day, 7th day and 21st day post operatively.

Results: There were statistically significant differences($p<0.01$) found in all the outcome measures in both groups. Further, comparison was done between the groups. It was found that statistically not significant difference in PFT parameters.

Conclusion: It is concluded that PFT values on 3rd and 7th day postoperative are more significant in experimental group than control group. But on 21st day post operatively there was no significant difference. So, it is concluded that preoperative respiratory muscle training help and preserve pulmonary function in initial period post operatively.

Keywords: Respiratory muscle training, Abdominal surgery, PFT.

Abstract 39

EFFECT OF POSTURAL CORRECTION AND MODERATE INTENSITY EXERCISES ON EXERCISE TOLERANCE IN TEENAGERS

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Background: Teenage is the time of shaping health behavior and preventing postural defects and improving respiratory fitness. Postural defects are commonly seen among teenagers due to lack of physical activity and poor postural habits. which can lead to non-harmonious development of organs and affect respiratory system as well.

Objective: There is a lack of literature showing the effect of posture correction and moderate intensity exercises on exercise tolerance in teenagers, hence this study would be helpful to analyses the same. Objective of our study is to find out the effect of posture correction exercise on the exercise tolerance in teenagers and to find out the effect of moderate intensity exercises on the exercise tolerance in teenagers.

Methods And Materials: The study was carried out in the karad area. The subjects were selected according to inclusion and exclusion criteria. Total 35 subjects participated in this study. Prior consent and assent form was taken. Pre and post assessment was done by a 6minute walk test, and flexicurve was measured using flexible ruler to recognize spinal postural defect. Result: In this study, 6minute walk test, flexicurve showed statistically significant difference between pre and post treatment values.

Conclusion: On the basis of the result of the study, it can be concluded that posture correction and moderate intensity exercises helps in improving exercise tolerance in teenagers. Keywords: Moderate intensity exercise, exercise tolerance, spine posture correction, teenagers, 6 min walk test.

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Abstract 40

ROLE OF ENVIRONMENT IN REHABILITATION SERVICES FOR PEOPLE WITH LOCO MOTOR DISABILITY: A NARRATIVE REVIEW

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People with disabilities face substantial health risks associated with a physically inactive lifestyle. Unfortunately, even when individuals with disabilities want to increase their physical activity levels, they are often confronted with many more barriers than the general population. This limits or restricts their opportunities to improve their own health. The participation of younger and older individuals with loco motor disabilities in physical activity must become one of the highest priorities for public and private organizations responsible for improving the health of every citizen in this nation. As health care practitioners, it is important to have an understanding of the common environmental factors of the rehabilitation services we provide. This article aimed to review the relevant literature regarding environmental factors associated with participation in fitness and recreation programs/facilities among persons with disabilities. A deeper understanding of engagement within the loco motor disability population may help to enhance the effectiveness of rehabilitation interventions. Articles for the period 2010–2020 using descriptors related to rehabilitation services, barriers, facilitators and the loco motor disabled population were retrieved for this review. Even though there were few studies highlighting the environmental factors of rehabilitation services, it would be advisable for health professionals to take knowledge of the issues highlighted in this study in order to make rehabilitation services more effective. Key words: Environmental factors, rehabilitation services, people with loco motor disabilities

Abstract 41

EFFECT OF SPINAL MOBILIZATION WITH LEG MOVEMENT AND NEURAL TISSUE MOBALIZATION ON DISABILITY IN PATIENTS WITH UNILATERAL LUMBAR RADICULOPATHY

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Background: Lumbar radiculopathy is the low back pain radiating to one or both lower extremities. India has an incidence of 23.09% in lumbar radiculopathy. The spinal mobilization with leg movement technique corrects positional faults reducing the pressure off the structures that produce the pain and limitation in radiculopathy patients. Neural tissue mobilization breaks the adhesion of the nerves and surrounding structures improvising the mechanical interface and enhancing the functions in lumbar radiculopathy.

Objective: To find and compare the effect of Spinal Mobilization with leg movement and Neural Tissue Mobilization on Disability in patients with Unilateral Lumbar Radiculopathy

Method: Pre and post experimental study done in department of physiotherapy, KG hospital, Coimbatore included 30 subjects through purposive sampling method were divided into two groups. Group A-15 received Spinal Mobilization with leg movement along with Conventional Therapy. Group B – 15 subjects received Neural Tissue Mobilization along with Conventional Therapy for six weeks. The outcome measure was Modified Oswestry Disability Index.

Results: Statistical tool used was Paired t test and unpaired t test. Unpaired t test value of group A and B post mean value was 1.7063.

The result showed significant improvement in group A when comparing group B, at $p<0.1$

Conclusion: This study concluded that spinal mobilization with the leg movement along with conventional therapy has significant improvement than neural mobilization with conventional therapy.

Abstract 42

ELECTROMYOGRAPHIC ANALYSIS OF SHOULDER MUSCLE ACTIVITY IN WOMEN FOLLOWING BREAST CANCER TREATMENT: A CROSS-SECTIONAL ANALYSIS.

Dr. Kalpesh Kumar Gunvantrai Vasani (PhD Research Scholar, Parul University, Vadodara) Designation: Principal I/c &Asso Professor, Shri D. M. Patel College of Physiotherapy, Amreli Place of Study: Amreli, Gujarat.

Objective – To compare the shoulder muscle activity in women presenting with and without pain following breast cancer treatment and also to compare the same with normal.

Methodology - A total of 32 women were included and allocated to three groups: (I) 12 women with persistent peripheral pain after breast cancer treatment, (ii) 10 women without pain after breast cancer treatment, and (iii) 10 healthy women. Surface electromyography was employed to measure the onset and amplitude of the muscle activity of three shoulder movements. Statistically significant differences were found in the neuromuscular activity for all the muscles and shoulder movements among women with persistent pain versus healthy women (i.e., amplitude muscle activity variable $p < 0.001$). Statistically significant differences were also observed in the neuromuscular activity for certain muscles in shoulder movements among women with persistent pain versus women without pain, as well as between women without pain versus healthy women. Therefore, following breast cancer treatment, women showed alterations in their shoulder neuromuscular activity, which were more significant if persistent pain existed. These findings may contribute to developing a selective therapeutic exercise program that optimizes the shoulder neuromuscular activity in women after breast cancer treatment.

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Abstract 43

EFFECTIVENESS OF VIRTUAL REALITY TRAINING FOR HAND DEXERITY IN PARKINSON'S SUBJECTS

G. Vaishnavi, Assistant Professor, Faculty Of Physiotherapy, Dr. MGR Educational And Research Institute

Objective: Aim of the study is to determine the effectiveness of virtual reality training for hand dexterity in Parkinson's subjects.

Background of the study: Parkinson's disease is one of the most common neurodegenerative disorders. Parkinson's disease includes multilevel impairments in functional, motor activities which leads to worsening the patients physical and psychological disabilities, more than 10 million people worldwide are living with Parkinson's disease. Hand dexterity is as essential as walking ability or postural stabilization or maintaining independence and quality of daily living activities.

Methodology: a comparative study was done with 20 samples. The study was conducted in ACS MEDICAL COLLEGE AND HOSPITALS, Physiotherapy OP, Krrish Physiotherapy clinic. The duration of treatment were 8 weeks. Both male and female individuals with Parkinson's disease in concern about hand dexterity difficulty, between the age of 50-55 were included.PD with other neurologic diagnosis, Cognitive impairments, Vision impairments, Uncooperative medication, Cardiac problems, uncooperative are excluded. The outcome measure tools are Box and Block test (BBT) and Chedoke Arm and Hand activities Inventory (CAHAI-13). PROCEDURE: Based on inclusion and exclusion criteria and outcome measures, 20 subjects were divided into two groups. Group A (10 subjects) were treated with virtual reality training using Leap Motion Controller for 4 days a week for 2 months and Group B (10 subjects) were treated with conventional physiotherapy for 4 days a week for 2 months.

Result: On comparing the mean values of Group A & Group B by using CAHAI-13 and BBT score, Group A shows the mean value CAHAI-13 (79.20),BBT-LEFT HAND (77.30) and BBT-RIGHT HAND (78.60) is higher than Group B.Group B shows the mean value CAHAI-13 (72.90),BBT-LEFT HAND (71.60) and BBT-RIGHT HAND (72.60**).**

Conclusion: The Virtual reality Training seems to have shown better results in manual dexterity in Parkinson's subjects. People with mild to severely disability Parkinson's have reduced dexterity and problems with hand function. KEYWORDS: Parkinson's disease, virtual reality, Leap motion controller, hand dexterity

Abstract 44

"LONG COVID –LONG HAULERS-LONG PHYSIOTHERAPY-A PHYSIOTHERAPIST'S REVIEW"

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Background: Long COVID-Long haulers is the term used to denote the long-standing effects of Covid infection in various body systems irrespective of viral status. Persisting symptoms are due to multiple organ damage, varying organ recovery time, persisting chronic inflammation, hospitalization, critical illness syndrome, effects of medications, influence of existing comorbidities. These physiological changes warrant a multidisciplinary team intervention including Physiotherapists.

Aim: To summarize the physiotherapy interventions used in the searched articles for Long Covid-long haulers.Methods: A Boolean search of relevant literature included databases PubMed, Science Direct,PEDRO, Google Scholar with key terms Covid - 19, Long Covid, Long haulers, airway clearance, aerobic, resistance exercises were done. Full articles, guidelines published between 2020-2021 that met the relevance and specific objectives of the study were retrieved and analyzed for the physiotherapy interventions in Long Covid.

Results: Fatigue, Cognitive dysfunction, Shortness of breath, Dizziness upon standing, changing positions, headache, Palpitations, Chest tightness, Joint or muscle pain was the common reported symptoms in the studies. Assessment included respiratory, cardiovascular reserve, Post exertional symptom exacerbation, oxygen desaturation,dysautonomia, musculoskeletal system. Exercise prescription focused on conservative activity, energy maximization, airway clearance techniques, bedside cycling in acute phase.

Emphasis on resuming daily activities, balance training has been suggested. Graded exercise protocol with aerobic and resistance training had significant changes in functional status A termination criterion is warranted in the exercise protocol for these patients. **Conclusion:** This review would provide insight to physiotherapists on various management principles and physiotherapy interventions for Long COVID

Keywords: Long Covid, long haulers, exercises, aerobic, resistance, airway clearance.

Abstract 45

PHYSICAL EXERCISE IS CONFIRMED TO REDUCE LOW BACK PAIN SYMPTOMS IN OFFICE WORKERS

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This orderly survey expected to investigate the impacts of a physical exercise (PE) program on low back pain (LBP) manifestations of office workers and the change of adaptability and scope of movement (ROM), solid strength, and personal satisfaction (QoL) A writing research was performed on Pub Med, Scopus, MEDLINE, and SPORT Discus from April to May 2018. The watchword "low back pain" was related with "office laborer" OR "VDT administrators" OR "office representatives" OR "work environment" AND "exercise", OR "exercise treatment" OR "physical movement". Incorporation models were a home-or work-based exercise convention for office workers with LBP side effects and pre-to post-mediation assessment of LBP indications. Three specialists freely inspected all modified works. The adjusted Cochrane strategic quality measures were utilized for quality appraisal and 11 articles were incorporated.Exercise conventions were performed from 6 weeks to a year, 1–multi day out of every week, enduring 10–60 min for every meeting. Physical Exercise in the working environment worked on every one of the thoughts about results. The best improvement was recorded in regulated conventions and in video-upheld conventions acted in the working environment. The impact might be produced with little span meetings during the functioning day, with just 10–15 min of adjusted exercise to be performed 3–5 days of the week**.**

KEY WORDS: Physical Exercise, Pain, Office Workers.

Abstract 46

EFFECTIVENESS OF OTAGO EXERCISES VS KITCHEN SINKEXERCISES WITH STRENGTH TRAINING ON DYNAMIC BALANCE INPARKINSON'S PATIENTS: A COMPARATIVE STUDY

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Background -Parkinson's disease (PD), also known as idiopathic or primary parkinsonism is a degenerative disorder of the central nervous system mainly affecting the motor system. The Otago exercise program (OEP) is a strength and balanceretraining program designed to prevent falls in older people living in thecommunity. Exercises at the Kitchen Sink helps to improve balance, increases strength, endurance and flexibility.

Objectives- There are studies which show that Otago exercises are effective in improving balance in Parkinson's patients. It has been proved in that kitchen sink exercises are effective in improving balance in Parkinson's patients. Hence the study needs to be carried out to compare the effectiveness of Otago exercises Vs Kitchen sink exercises with Strength training on dynamic balance in Parkinson's patients.

Methods- Parkinson's Patients of age 50-70 years were divided into 2 groups. group A was given Otago exercises and Group B was given Kitchen sink exercises with strength training. Results- There was a significant difference ($p<0.05$) when comparing post scores of Otago exercises treatment versus Kitchen sink exercises with strength training mean scores on Timed Get up and Go Test. There was a significant difference ($p<0.05$) when comparing post scores of Otago exercises treatment versus Kitchen sink exercises with strength training mean scores on Dynamic Gait Index.

Conclusion- While comparing both the techniques Otago exercises proved to be more effective than Kitchen Sink exercises with strength training in treating Parkinson's patients with respect to Timed Get up and Go test and Dynamic Gait Index.

Keywords: Otago Exercise Program, Parkinson's Disease, Kitchen Sink exercises, Dynamic Balance

Abstract 47

RELIABILITY AND VALIDITY OF GUJARATI PITTSBURGH SLEEP QUALITY INDEX: A CROSS-SECTIONAL STUDY

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Background: Poor quality of sleep is a common symptom of many sleep disorders. Pittsburgh sleep quality index (PSQI) is self-administered questionnaire that measures quality of sleep of an individual. It includes subjective sleep quality, sleep latency, sleep duration, habitual sleep efficiency, sleep disturbances, use of sleeping medications and day time sleepiness.

Objectives: To translate English PSQI into Gujarati Language and to find reliability and validity of Gujarati version of PSQI.

Method: This cross-sectional study was conducted during August, 2020 to February, 2021. Permission was taken to translate original English PSQI to Gujarati language from the Mapi research trust. This study was carried out in four phases: 1. Cultural adaptation and translation of PSQI into Gujarati language, 2. Face and content validation by expert clinical review, 3. Cognitive interviews. 4. Test-retest reliability. Forward-backward-forward method was used to translate PSQI. The consensus method was used to find face and content validity of Gujarati PSQI. The group of experts having mean experience of 10.5 years in different fields has examined each item of Gujarati PSQI. Total 120 participants aged between 18-60 years were

included in this study. SPSS version 24 was used to analyses the data. RESULTS: Gujarati version of PSQI showed excellent test-retest reliability as evidenced by high Intraclass correlation coefficient (ICC=0.87) and high Internal consistency (α= 0.93). Modified kappa (K) was 1 for each item of Gujarati PSQI.

Conclusion: Gujarati version of the PSQI has excellent reliability and good face and content validity. It is adequate and useful for evaluation of quality of sleep in Gujarati speaking population.

Abstract 48

EFFECTIVENESS OF SHOCK WAVE THERAPY ON SEVERITY AND FUNCTION IN IDIOPATHIC CARPAL TUNNEL SYNDROME– A PILOT STUDY

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Introduction: Physiotherapy intervention is the most common as conservative treatment in clinical practice. There are several techniques have been applied include ultrasound therapy laser therapy, hand activities, paraffin wax therapy and kinesiotapping. Currently, shock wave therapy (ESWT) is relatively new non-invasive therapeutic modality with proved effectiveness, convenience and safety to treat any musculoskeletal disorder as well as carpal tunnel syndrome (CTS). But not much study have done to show the effectiveness of EWST in treating CTS especially in Malaysia**.**

Method : 24 individual who was diagnosed with CTS by physician and fulfilled the inclusion criteria were selected. They were randomly allocated into two groups and each group consisted of 12 subjects. They were completely briefed about the nature and purpose of the study before consent form was obtained. Group A received ESWT (1000 shock and 3Hz) with hand exercise (nerve and tendon gliding exercise) twice a week for four weeks.Group B considered as Control group only received hand exercise (nerve and tendon gliding exercise) twice a week for four weeks. Boston Carpal Tunnel Questionnaire (BCTQS) was used to measure the severity and functional status of the subjects.

Results: Paired and Independent T test analysis evidentially pointed that the group that received ESWT and hand exercise showed statistically significant difference (P value <0.005) for severity and functional status scale pre and post intervention.

Conclusion: Result of this pilot study conclude that ESWT can be used in treating CTS. ESWT is safe, effective and practical to use in clinical setting.

Keyword: Physiotherapy,shock wave therapy,carpal tunnel syndrome,conservative intervention,

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Abstract 49

EFFECT OF ANKLE PROPRIOCEPTIVE TRAINING ON BALANCE AND RISK OF FALL IN SUBJECTS WITH DIABETIC NEUROPATHY

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Background Diabetic neuropathy is one of the major complications of diabetes mellitus, which mainly affect lower limb of the body that can lead to balance disturbance and increase the risk of fall. These can lead to consequences such as fracture or multiple injuries which affects quality of life.

Objective The Objective of the study was to find the Effect of Ankle Proprioceptive Training on Balance and Risk of Fall in subject with Diabetic Neuropathy

Methods20 subjects with diabetic neuropathy of both sexes, aged 50-65 years were recruited and randomly allocated into 2 groups. The experimental group (n=10) received Ankle Proprioceptive Training along with traditional physical therapy, the control group (n=10) received Traditional Physical Therapy alone, 3 sessions a week for 8 weeks. Balance and Risk of Fall were evaluated with Berg Balance Scale and Falls Efficacy Scale.

ResultsThere was difference in the post test mean scores of both groups in Berg Balance Scale was 39 and 36.10 and Falls Efficacy Scale was 34.50 and 39.70 respectively. The result showed a significant improvement in experimental group than in control group at $p<0.05$.

Conclusion: Ankle Proprioceptive Training is beneficial with Traditional Physical Therapy used for improving the Balance and reducing the Risk of Fall in subjects with Diabetic Neuropathy.

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Abstract 50

"EFFECT OF NEUROMUSCULAR EXERCISES AND QUADRICEPS STRENGTHENING EXERCISES ON PAIN AND FUNCTION IN PATIENTS WITH KNEE OSTEOARTHRITIS"

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Background: Knee osteoarthritis (OA) is a degenerative joint disease. There are around 654.1 million individuals (40 years and over) affected with knee osteoarthritis in 2020 worldwide. Osteoarthritis alters the structure of the cartilage, that causes both pain and loss of physical function, resulting in reduced quality of life. Exercise is an efficient treatment to reduce knee pain and improve function and quality of life in patients with knee osteoarthritis.

Objectives: To find out and compare the effect of Neuromuscular exercise and Quadriceps strengthening exercise on pain and function in patients with knee osteoarthritis.

Method: A pretest and posttest experimental study design with a total of 30 patients were divided into two groups. Group A received quadriceps strengthening exercises and Group B received neuromuscular exercises for 8 weeks duration, 3 session per week. Pain was measured using the visual analogue scale (VAS) and Function was measured using the western posttest universities osteoarthritis index (WOMAC). Results: Paired and Unpaired t test were used for the statistical analysis. The pain had posttest value of 4.8 in Group A and 2.2 in Group B. The physical function with posttest value of 46.07 in Group A and 28.0 in Group B. Group B showed significant changes ($p<0.05$) among the variables when compared with the Group A

Conclusion: The Neuromuscular exercise showed significant improvement than the Quadriceps strengthening exercise on pain and physical function in patients with knee osteoarthritis. Thus, this study concluded that Neuromuscular exercises is more effective than Quadriceps exercise given to group A.

Abstract 51

TOPIC: EFFECTIVENESS OF GASTROCSOLEUS ECCENTRIC EXERCISES FORPAIN And Disability Among Females With Haglund'ssyndrome

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Objective: Evaluate the effectiveness of Gastrocsoleus Eccentric exercises on pain and disability among females with Haglund's syndrome.

BACKGROUND: Haglund's Syndrome is caused by rigid back of shoes and high heel. The calcification results in pain and functional disabilities. Eccentric exercises lengthen the musculotendinous junction when it is under load with low risk of tendon injury.

Methodology:study type: experimental study design study setting: general population sampling technique: random sampling method sample size: 20inclusion criteria: females, age 25-40, pain and tenderness on posterior aspect of heel exclusion criteria: diffuse pain syndrome. connective tissue disease, plantar fasciitis, calcaneal spur. procedure:20 subjects was selected according to the selection criteria. group a – ultrasound & cryotherapy group b- ultrasound & cryotherapy with eccentric exercises outcome measures: visual analog scale (vas), foot function index (ffi)

Result: After 6 weeks of treatment, it is observed VAS Score with average values of GroupA (60.1 ±3.54) and Group B (54.42 ±3.72) and FFI of Group A (59.06 ±3.46) and Group B(50.7 ±4.80). The VAS and FFI shows p value (p, 0.004) and (p, 0.0008)

Conclusion: The Gastrocsoleus eccentric exercises shows significant effect than conventional UST and cryotherapy.

Abstract 52

RELATIONSHIP OF FORWARD HEAD POSTURE WITH NECK PAIN AND DISABILITY AMONG YOUNG ADULTS: A CROSS SECTIONAL PILOT STUDY

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Introduction: Posture is an important health indicator. Forward Head Posture (FHP) is known to be most common poor posture in head and neck region. Improper posture for the longer periods of time leads an abnormal stress on neck. FHP posture may also cause secondary damage to the anatomical structures resulting in symptoms such as pain. So the present study was undertaken to find out the association of FHP with neck pain and disability in cervical region among young adults.

Methodology: Cross sectional pilot survey was conducted on conveniently selected 10 young adults with FHP and history of neck pain. Craniovertebral angle (CVA) was measured by using diagnostic imaging techniques in standing position with Kinovea application. Numerical Pain Rating Scale (NPRS) and Gujarati/English version of Neck Disability Index (NDI) were used to measure intensity of pain and severity of disability respectively

Results: The spearmen's correlation coefficient was used to find out the relationship of CVA with NPRS and NDI. Significant moderate

negative association (r= 0.56, p<0.001) was noted between CVA and NPRS (neck pain) and significant weak negative correlation (r=0.37, p<0.001) was noted between CVA and NDI (disability) among young adults.

Conclusion: The findings of present study revealed that there is significant inverse correlation of FHP with neck pain and disability. So correction of improper posture will be effective in preventing neck pain and disability.

Keywords: Forward Head posture, Neck pain and Disability, Young adults

Abstract 53

A STUDY TO COMPARE THE EFFECTIVENESS OF PLANTAR FASCIA STRETCHING VERSUS POSITIONAL RELEASE TECHNIQUE IN SUBJECTS WITH PLANTAR FASCIITIS.

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Aim: To Compare the Effectiveness of Plantar Fascia Stretching Versus Positional Release Technique In Subjects With Plantar Fasciitis.

Introduction: Plantar fasciitis is the most common cause of rearfoot heel pain, with an estimated 2 million visits per year resulting from this chronic condition of repetitive microtears and degeneration secondary to stress overload. Hence, this condition becomes a major concern for many of the people and this condition can be treated by the various advanced therapies of physiotherapy.

Objective: The objective of this study is to compare the effectiveness of Plantar Fascia Stretching versus Positional Release Technique in subjects with plantar fasciitis.

Methodology: Duration – 4 weeks Procedure**:**Patients are taken for the study on the basis of the inclusion and exclusion criteria.Pain and disability is measured by VAS and FFI.Group A**:** plantar fascia stretching. group b:positional release technique**.**

Results: Both the treatments are individually effective in terms of increment in VAS score and FFI score. But the results of inter-group analysis showed that Treatment A is considered to be effective than Treatment B in terms of improvement in VAS and FFI in subjects with Plantar fasciitis.

Conclusion: Treatment A is effective than Treatment B in terms of all the measures – VAS & FFI in subjects with plantar fasciitis.

Abstract 54

SIGNIFICANCE OF DEEP CERVICAL FLEXOR STRENGTHENING EXERCISE VS KENDALL EXERCISE ON SCHOLAR'S NECK AMONG COLLEGE STUDENTS DUE TO THE USE SMART PHONES

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Objective: Forward Head posture is the major musculoskeletal disorder since theadvent of smart phones. During the outbreak of pandemic, the prevalence of scholar's neck ishigh among college students who undergo online classes. It affects the functional ability of thestudents due to pain & change in Cranio Vertebral angle. There are many treatments available,among them deep cervical flexors strengthening exercise & Kendall exercise are found to beeffective addressing this condition. However, there is a paucity arises in highlighting whichtreatment is more effective. Therefore, this comparative study was done.Study design: Comparative Study

Methodology: 30 college students in SVGI were included under the selection criteria andrandomly allocated into 2 Groups (A & B), containing 15 students each. deep cervical flexorstrengthening exercise (DCFS) & Kendall exercise were given. The outcome tools used wereNPRS, PGM Photogrammetrically Measurement & Neck Disability Index for assessing Pain,CVA& functional limitation Results: Obtained values were statistically analyzed using paired & unpaired ' t' - test. Theof this study shows that Kendall exercise is found to be effective on improving pain, CVA& functional limitations (p<0.001).

Conclusion: Therefore, this study concluded that Kendall Exercise is significantly effectivethan DCFS exercises on improving FHP among College Students. Keywords: CVA, NDI, PGM,Kendall exercise, DCFS exercise.

Abstract 55

A BRIEF REVIEW OF NONSPECIFIC LOW BACK PAIN IN SEDENTARY WORKERS.

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Introduction: Sedentary life style is considered as one of the risk factors, significantly increasing the incidence of low back pain. Higher levels of sedentary life style is observed in the workers who spent most of their time in sitting position in the work place and during leisure time. The incidence of low back pain in employees with sedentary behavior was 14-37% and the prevalence of people experienced low back pain is 34-62%. The low back pain individuals had substantially higher productivity loss than the people without low back pain. It indicates more research is needed to be done in order to help the individuals with back pain to remain in or return to work. The aim of this study is to briefly review the associated factors and rehabilitative techniques and strategies for the prevention and management of nonspecific low back pain in sedentary workers.

Methods: To do this review information is gathered from the offline library resources and online electronic search databases (Scopus, COCHRANE, PUBMED). Using the key words, low back pain, sedentary workers, sedentary life style.

Conclusion: literature reported that low back pain in sedentary workers is multifactorial origin, the individual, physical, psychosocial factors associated with low back pain are History of low back pain, static sitting more than 5 hours, increased body mass index, lack of physical activity, postural strain and work-related stress. Prolonged sitting promotes physical deconditioning and early muscle fatigue. Reducing prolonged sitting time, increase in physical activity level and fallowing exercise programs that combines muscular strength, flexibility and aerobic fitness may prove beneficial

Abstract 56

THE STRAIN GAUGE DEVICE IN ENHANCING VISUAL AND AUDITORY FEEDBACK AND PERFORMANCE DURING ISOMETRIC QUADRICEPS EXERCISE

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Introduction: REHABULOUS is used to assist patient in performing isometric quadriceps exercise. Isometric quadriceps exercise is common self-supervised home-based exercise. Lack of feedbacks during exercise also one of the factors causing efficacy of this exercise to be compromised. So this device able to assist patient in performing self-supervised home based isometric quadriceps exercise.

Objective: To design and fabricate a cost effective and comprehensive device to perform self-supervised isometric quadriceps home exercise training effectively which is not available in the market.

Methods: This is an Cross Sectional Observational Study. The device is placed under right or left knee beneath the knee joint to be strengthened. Isometric quadriceps exercise is done in 2 sets, 10 repetitions, hold for 5 seconds. Ten subjects of male and female selected randomly within ages of 18 to 25. A single session with exercise by using REHABULOUS. Duration will be 2 minutes.

Results: The results show that 50% of subjects greatly satisfy, 40% of the subjects feel moderate satisfy and only 10% of the subject feel uncomfortable with device combine with the isometric quadriceps exercise.

Keywords : Quadriceps muscle, weakness, isometric quadriceps exercise, knee osteoarthritis, total knee replacement, soft tissue injuries, preoperative management, post operative management

Abstract 57

RISK FACTORS OF KNEE OSTEOARTHRITIS FOR ELDERLY PATIENT IN KEDAH STATE, MALAYSIA.

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Introduction: Osteoarthritis (OA) is defined as a degenerative, non-inflammatory joint disease described by destruction of articular cartilage and formation of new bone at the joint surfaces and margins. There are many risk factors related to knee osteoarthritis for elderly patient. However, less research was done in Malaysia especially Kedah state. Hence, this study was conducted to determine the risk factors of knee osteoarthritis for elderly patient in Kedah state.

Method: A prospective observational study on a sample of 100 elderly participants with diagnosed knee osteoarthritis in Kedah state by using pretested and validated questionnaires to obtain information on risk factors of knee osteoarthritis for elderly patients. For the evaluation of risk factors of knee osteoarthritis for elderly patient in Kedah state, no significance difference between hypertension, previous fall and previous knee injury variables. There were significance different in gender (p-value = 0.003), age (p-value = 0.000), obesity (p-value = 0.000), physical activity level for elderly (p-value = 0.000) and previous active in sport activity (p-value = 0.000).

Conclusion: In overall, we found that female gender, aging, obesity, lack of physical activity and previous active in sport activity were risk factors of knee osteoarthritis for elderly in Kedah state. Hypertension, previous fall and previous knee injury were not risk factors of knee osteoarthritis for elderly in Kedah state.

Keywords: Knee Osteoarthritis, Elderly Patient, Malaysia.

Abstract 58

ROLE OF LOWER LIMB MUSCLE STRENGTH IN PREDICTING FALL RISK AMONG ELDERLY: A NARRATIVE REVIEW.

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Background: Literature suggested that the weakness of lower limb muscles alone contributes about 40% of all outdoor falls among the elderly. However, controversy is there among literature about the weakness of which lower limb muscle responsible for the elderly at fall risk.

Objective: To review the literature on the role of lower limb muscle strength/weakness among the elderly at fall risk and to identify which lower limb muscle strength reduction is responsible for falls among the elderly.

Method: Relevant literature was searched using keywords in computerized databases. Thereafter, the literature was scrutinized based on set inclusion and exclusion criteria.

Result: According to studies that found different lower limb muscles weakness able to lead to fall risk. However, we all only agree to plantar flexors and quadriceps muscles are playing the main role in predicting fall risk.

Conclusion: This review suggested that the weakness of plantar flexors and quadriceps muscles of the lower limb are playing the main role/responsible muscle in falls among the elderly.

Keywords: Fall risk, lower limb muscles, elderly,andmusclestrength.

Abstract 59

INNOVATION OF FORWARD HEAD POSTURE ORTHOSIS WITH KYPHOSIS BRACE

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Background: Forward head posture associates with kyphosis and rounded shoulder in nowadays young as well as geriatric population due to increasing usage of digital device. **Aim**: The purpose of this study is to test forward head posture orthosis does have effect in reducing the abnormal cranio-cervical angle as well as its complications.

Design: Pilot study.

Method: A quantitative research model in the form of pilot study is carried out. Five participants with neck pain accompany with forward head posture are involved in this study. Each day, samples need to wear orthosis estimate 6 hours per day. Data will be collected with measurement of craniovertebral angle and Northwick Park Neck Pain Questionnaire before wearing the orthosis and one week interval after wearing the orthosis with 4 weeks consecutively.

Study site: Hospital Sultan Abdul Halim, Kedah, Malaysia.

Result: Craniovertebral angle for first visit is 49.7° [95% confidence interval (CI) and it improved to 51.3°. [95% confidence interval (CI). NPNPQ before and after the intervention with forward head posture orthosis. Pa is 0.136 (Pa < 0.05) which has no significance.

Discussion: Forward head posture orthosis with kyphosis brace has significant effect on restoration of normal cervical curve and correcting kyphotic posture. Pain score was reduced after 1 month of intervention compared to pre-intervention.

Keywords: forward head posture, postural orthosis, Northwick Park Neck Pain Questionnaire, geriatric, craniovertebral.

Abstract 60

EFFECTIVENESS OF VAGINAL WEIGHTS IN REDUCING SYMPTOMS OF PELVIC FLOOR DYSFUNCTION: A META-ANALYSIS

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Introduction: Pelvic floor dysfunction (PFD) refers to broad symptoms and anatomic changes related to abnormal function of the pelvic floor musculature. Various studies have assessed the effectiveness of vaginal weight in treating pelvic floor dysfunction when compared with other treatments. However, there are controversial conclusions that arrived when the effectiveness of vaginal weights was compared in various ways. Thus, this study aimedto analyze the effectiveness of vaginal weights compared with other interventions in reducing the symptoms of pelvic floor dysfunction

.**Method:** A literature search will be performed to identify studies concerning the effectiveness of vaginal cone (VC) in PFD. All relevant articles will be identified by using available databases. Only RCT studies that analyze the effects of vaginal weights and meet with inclusion criteria will be considered. Data synthesis will be done based on PRISMA guidelines.

Conclusion: VCs can be as effective as other physical therapy such as pelvic floor muscle training, electrical stimulation and behavioral therapy. Thus, it is advisable to use VCs in combination with other treatments rather than using VCs alone.

Key Words: Vaginal Weights, Pelvic Floor Dysfunction.

Abstract 61

CLINICAL APPLICATION OF PAIN DETECT QUESTIONNAIRE.

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Background: Pain detect questionnaire is specifically developed to detectpain mechanism in adult patient with low back pain. Nociceptive and neuropathic components both contribute to pain in low back. Since these components require different pain management strategies, correct diagnosis of pain mechanism is highly desirable. As low back pain (LBP) patients constitute an important subgroup of chronic pain patients, we addressed the following issue- to establish a simple, validated screening tool to detect pain mechanism in LBP patients.

Materials and Methods: Pain detect screening questionnaire was administered to patients with low back painBased on scores, they were grouped into nociceptive and neuropathic group. Examination included Neurological screening, Mobility testing, Flexibility testing, Directional preference and NPRS were assessed. Patients were treated with the individual exercise prescription based on th pain mechanism. pre and post values of NPRS & PDQ were taken for analysis

.**Results:** six participants completed the study. On follow up there was a reduction in pain severity and PDQ scores denoting good prognosis.

Conclusions: The findings conclude the significant clinical utility of pain detect questionnaire in low back pain patients. Moreover, exercise prescription need to be based on the existingpain mechanism.

Abstract 62

COMPARE THE EFFECTIVENESS OF CLOSED KINETIC CHAIN AND ELASTIC BAND EXERCISE ON QUADRICEPS MUSCLE STRENGTH AMONG INDIVIDUALS WITH OSTEOARTHRITIS KNEE.

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Background And Objectives: Quadriceps is a strongest muscle of the body that is required for knee mobility. Quadriceps plays a crucial role in daily activities such as walking, jumping, running and controlling the movement of knee. Hence, this study aimed to compare the effectiveness of closed kinetic chain exercise and elastic band exercise on quadriceps muscle strength among individuals with osteoarthritis knee.

Methods: A comparative study involved a total of 30 subjects with knee osteoarthritis, aged between 40 - 65 years were randomly organized to perform closed kinetic chain exercise and elastic band exercise. Quadriceps muscle strength were assessed using modified sphygmomanometer test and WOMAC score is measured respectively at baseline and at the end of the week 4 and 6 of study.

Result: there was significant difference between the two groups. Subject in the closed kinetic chain exercise (group A) generally showed greater improvement compared to the elastic band exercise group B, ($p<0.0001$).

Conclusion: the study has been concluded that closed kinetic chain exercise (group A) showed marked improvement in quadriceps muscle strength among osteoarthritis knee patients than elastic band exercise (group B).

key words: exercise therapy, elastic band, muscle strength, quadriceps muscle, knee osteoarthritis.

Abstract 63

EFFECT OF MWM, MCCONNELL TAPING AND CONVENTIONAL THERAPY ON PAIN AND FUNCTIONAL ACTIVITY IN PATIENTS WITH PATELLOFEMORAL PAIN SYNDROME

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Background: pFPS is a structural disorder with characteristics of peripatellar, anterior, and even retro patellar pain that increases with knee flexion and extension, symptoms including mild swelling, crepitation, tenderness on medial surface of the patella, and knee buckling. The factors that contribute to PFPS are unclear. PFPS has been related to limited function, decreased quality of life, and increased healthcare costs.

Objective: To find out the effect of Movement With Mobilization(MWM), McConnell Taping(MT) and Conventional Therapy(CT) on pain and functional activity in patients with PFPS.

Methodology: A quasi experimental study with purposive sampling technique was conducted at KMCH institute of health sciences, Coimbatore. Patients diagnosed with PFPS and fit in the selection criteria were allocated into three groups. Group-A received MWM, Group-B received MT and Group-C received CT along with home exercise program for 2 weeks.

Outcome measures: Pain, functional activity.

Results: The data was analyzed using paired 't' test and two-way ANOVA at 5% level of significance. The post-test mean values of NPRS and Lower Extremity Functional Scale showed statistically significant difference in both within groups and between groups, but greater improvement were observed in Group-A for improving functional activity and Group-B for reducing pain in patients with PFPS.

Conclusion: The study has been concluded that treatment with MWM, MT and CT were good in reducing pain and improving functional activity, but MT showed better results in reducing pain comparing to other two treatments MWM showed better results in improving functional activity comparing to other two treatments in PFPS.

Abstract 64

EFFECTIVENESS OF CORE STABILITY EXERCISES AND HIP STRENGTHENING EXERCISES ON THE LEVEL OF FUNCTIONAL ACTIVITY AMONG OSTEOARTHRITIS KNEE JOINT.

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Introduction: Knee osteoarthritis (OA) is common in middle-aged and older people. OA Knee is linked to proximal lower extremity muscular weakness. It's unclear whether a hip muscle strengthening and lumbopelvic-hip core stability program will help those with OA knee symptoms and function. As a result, research into the influence of 6-week core stability and hip strengthening exercises on the level of functional activity in people with osteoarthritis (OA) of the knee joint is needed

.**Methodology:** A total of 30 respondents were asked to sign consent forms after being determined to be eligible for the study based on their inclusion and exclusion criteria. Subjects were then randomly assigned to one of two groups: group A (n=15) or group B (n=15). Subjects in GROUP A (Experimental group) underwent core stability, hip strengthening, and isometric knee exercise, while in GROUP B (Control group) received only isometric knee exercise. Before and after the intervention, the level of functional activity, range of motion, and muscle strength were measured.

Statistical analysis: In this study, pre and post interventional differences within the two groups were analyzed using paired t test

and between the groups were calculated using unpaired t test for each of the outcome measures. Statistical significance was set at $p < 0.05$.

Conclusion:This study concludes that the Core strength exercises and Hip strength training along with Conventional exercises were found to be effective on improving the level of functional activity and muscle strength among subjects with OA knee.

Keywords: Core Stabilization, Strengthening, Functional Activity, Osteoarthritis

Abstract 65

EFFECTIVENESS OF IASTM AND ECCENTRIC LOADING EXERCISES ON PAIN AND ADL AMONG PATIENTS WITH CHRONIC PLANTAR FASCIITIS.

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Background: Chronic plantar heel pain (CPHP) had been described as a painful heel with inflammation of the plantar fascia at its origin. In recent years, research had suggested that plantar heel pain is rather a non-inflammatory degenerative fasciitis. Plantar fasciitis, is considerably most common causes of heel pain. Approximately 15% of all foot complaints coming to the knowledge of health-care professionals can be attributed to this cause.

Objective: To find out the effectiveness of Instrument Assisted Soft Tissue Mobilization (IASTM) and eccentric loading exercises on pain and Activities of Daily Living (ADL) among chronic plantar fasciitis.

Methodology: A quasi experimentalstudy with convenience sampling technique was conducted at KMCH institute of health sciences Coimbatore. Patients who were clinically diagnosed with unilateral CPHP and fit in the eligibility criteria were chosen and were allocated into two groups. Group-A received IASTM and Group-B received eccentric loading exercises along with stretching exercises for 4 weeks. OUTCOME MEASURES: Pain, ADL.

Results: The data was analyzed using paired 't' test and independent 't' test at 5% level of significance. The mean value between pre and post-test shows decreases in the severity of plantar fasciitis. The post-test values of the outcome measures that were pain and ADL in both groups shows significant difference, but greater improvements were observed in group A (IASTM**).**

Conclusion: The study has been concluded that IASTM was effective in reducing pain and improving ADL in patients with CPHP.

Abstract 66

COMPARISON BETWEEN LUMBAR STABILIZATION EXERCISE AND LUMBAR DYNAMIC STRENGTHENING EXERCISE FOR COLLAGE STUDENT USING BIERING SORENSON TEST TO PREVENT RISK OF NON-SPECIFIC LOW BACK PAIN

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Background: Non – specific low back is the common musculoskeletal problem globally. There are many studies, shows about the reduce the non-specific low back pain. The major goal of the study is to prevent the non-specific low back pain. The aim of the present study was to prevent the non-specific low back pain for next one year by using Biering – Sorenson test and also compare the lumbar stabilization exercise and lumbar dynamic exercise in college student.

Methods: The study design was comparative study.The study included 50 subjects were randomly allocated into two groups: Group A (n= 25) lumbar stabilization exercise and group B (n=25) lumbar dynamic strengthening exercise. Before and after the procedure lumbar strength was measured by Biering-Sorenson test. Exercise were performed for 1 hour twice weekly, for 8 weeks.

Result: The statistical analysis done within the Group A and Group B. Compare with the baseline, lumbar extension strength and endurance improved significantly in both groups after 8 weeks. The

improvement was significantly greater in the lumbar stabilization exercise than the lumbar dynamic strengthening exercise.

Conclusion: Both the lumbar stabilization exercise and lumbar dynamic strengthening exercise strengthened the lumbar extensors. However, the lumbar stabilization exercise was more effective in lumbar extensor training by using the Biering – sorenson test. By increasing the intensity and duration of training, it is possible to prevent the non-specific low back pain in the college student.

Keywords: Lumbar stabilization exercise, lumbar dynamic strengthening exercise, non-specific low back pain, Biering – Sorenson test.

Abstract 67

PREVALENCE OF LOW BACK PAIN AND ITS RELATION WITH DEPRESSION AND DISABILITY AMONG UNDERGRADUATE STUDENTS OF PHYSIOTHERAPY.

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Background: Low Back Pain is a universal human experience which almost everyone has it at some point. Chronic Low Back Pain and Depression are the main causes of Disability Worldwide. Disability related to Chronic low back pain is a complex and multidimensional phenomenon. The risk of Physiotherapy students and Practitioners developing Low Back Pain has been particularly high

Objective: To find out the Prevalence of Low Back Pain and its relation with Depression and Disability among Undergraduate Students of Physiotherapy

Materials & method: In this study, 159 participants meeting the Inclusion criteria were selected. Level of Pain was assessed using Visual Analogue Scale, Level of Depression was assessed using Beck Depression Index, and Functional Disability was assessed using Oswestry Disability Index. Data was analyzed by SPSS version 16.0 and Microsoft Excel 2013. Prior to the statistical tests, data was screened for normal distribution. Kolmogorov- Smirnov test was performed to check normal distribution. This showed that data was not normally distributed.

Results: Prevalence of low back pain according to the duration is been categorized, that is 69% students had last week prevalence, 74.4% students had last month prevalence and 84.8% students had last 12month prevalence. Out of 159 students, 44% of students were falling in the no pain criteria and 56% of students were falling into the

pain criteria. Hence, a weak positive correlation has been showed between pain-disability & disability–depression and no correlation are seen between pain–depression.

Conclusion: Study shows that there was weak positive correlation of Low Back Pain and Functional Disability and no relation between Low Back Pain and Depression. It means that students with Low Back Pain are likely to have disrupted physical activity and less likely to have depression.

Abstract 68

MUSCULOSKELETAL DISORDER OF FEMALE WORKERS AND ERGONOMICS PROBLEMS IN TEXTILE INDUSTRIES.

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Background: The work of women workers is physically demanding which causes strain in the musculoskeletal system during the long working days. Women workers were exposed to several musculoskeletal discomforts present in their work environment, such as, back, shoulder, hand, neck, knee and foot pain, etc.

Aim of the study: The aim the study is to find out the ergonomics problem in the female workers which leads to musculoskeletal problems.

Methodology:A total of 50 subjects were recruited from various industries in SURAT area for the survey study on the basis of inclusion and exclusion criteria after signing the informed consent form**.** This survey used to investigate the musculoskeletal discomfort in women workers by using Nordic musculoskeletal questionnaire.

Results: This study found that 92% of women workers who participated in the study experienced knees and lower back pain, 87% of women workers experiences upper back pain and neck, 77% of women workers experienced thigh/hip/buttocks pain during last 12 months and women workers experienced trouble during the last 7 days greater in lower back is 87%, upper back is 77%.Neck and knees is 62%.

Conclusion: This study concluded that most commonly affected body parts included the upper back, wrist/hands, knees and ankles/foot annually and weekly most common affected body parts included the upper back, neck, wrists/hands and knees and also ankles/foot.

Abstract 69

EFFECT OF COGNITIVE BEHAVIORAL THERAPY IN CHRONIC LOW BACK PAIN: EVIDENCE BASED REVIEW.

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Background: Low back pain (LBP) which is described as episodic in nature is one of the common causes of disability. Chronic LBP is commonly referred to as persistent pain that has lasted for more than 12 weeks. Cognitive Behavioral Therapy (CBT) has become increasingly popular for a wide variety of chronic pain conditions, particularly for chronic LBP. CBT involves a combination of cognitive and behavioral techniques and is based on the assumption that the individual's way of thinking motivates and affects behavior and emotions. In this review, we mainly focused on determining the effect of CBT in chronic LBP patients.

Objectives: The main objective of this study is to review the literature about the role of CBT for pain and disability reduction in patients with chronic low back pain. Method: For the literature review, first we have identified the problem as chronic low back pain and various interventions used for it treatment. To review the literature, we used standard search strategies involving the querying of online databases like MEDLINE (PubMed), Google scholar and Cochrane library using key words followed by evaluation of the relevant articles. We have included mainly level I & level II evidences in our review. We used key words such as "Cognitive behavioral therapy" and "Chronic low back pain". Results: The last 10 years duration was utilized to search the articles. We have reviewed 20 articles to understand the effect of cognitive behavior therapy on chronic low back pain patients for pain reduction.

Multiple studies were supported that CBT has significant effect in pain reduction in Chronic LBP patient and can prevent the economic burden of the disease. Moreover, various interventions can be used to improve health of the Chronic LBP patients. This improvement can be achieved by the application of the interventions like isometric back exercises, aerobic exercises, etc. along with CBT.

Conclusion: Majority of available literature reviews are in support that cognitive behavioral therapy which has a significant effect in the pain and disability reduction in chronic low back pain patients. With application of various therapeutic methods like isometric back exercises and aerobic exercises, improvement in the condition of chronic low back pain is achieved along with pain reduction in them.

Abstract 70

"SIGNIFICANCE OF HAND-EYE COORDINATION AMONG SCHOOL TEACHERS WITH CHRONIC NON-SPECIFIC LOW BACK PAIN"

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Background: Non-specific low back pain is termed when the pathoanatomical cause of pain is not determined. School teachers have shown to have a low back pain prevalence rate of 12% - 84%. Studies have shown Core muscle weakness can greatly cause low back pain and there exists a strong positive correlation between its strength and Hand-eye coordination. As Core muscles are recruited in response to the sensory-motor mechanism activated by the mechanoreceptors and improved upper limb coordination can impact core muscles positively.

Objectives: The objective of the study is to find the effect of Hand-eye coordination among schools teachers with chronic non-specific low back pain.

Methods: 30 School teachers with Chronic Non-Specific low back pain were selected based on the selection criteria. They were assessed for pain, disability, core muscle strength and hand-eye coordination using NPRS, ODI, Plank test and Alternate wall toss test. A rest period of 2 hrs was given between the Plank test and AWT test. The samples were categorized into Experimental group (n=15) and Control group (n=15) by random sampling method. Experimental group were given Hand-eye coordination training using the racket driller exercises along with the conventional exercises for 4 weeks on alternate days.

Results: The results of this study showed that the participants of the experimental group revealed a significantly greater improvement in pain severity ($p< 0.05$), disability ($p< 0.05$), hand-eye coordination ($p< 0.05$) than control group B. The core muscle strength values were not statistically significant as both the groups performed the Core strengthening exercises (conventional therapy).

Conclusion: Hand-eye coordination along with Core strengthening exercises for school teachers with chronic non-specific low back pain can reduce the pain severity, disability and also the Core strength as improvement in Hand-eye coordination can impact the Core muscle strength positively and thus reducing the occurrence of low back pain.

Abstract 71

EFFECTIVENESS OF RETRO WALKING IN WOMEN WITH OSTEOARTHRITIS OF KNEE

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Background And Objectives Osteoarthritis of the knee is a major cause of mobility impairment, among females. The incidence of osteoarthritis increases after menopause. The purpose of this study is to investigate the effectiveness of retro walking in women with osteoarthritis of knee.

Methodology: Eighteen post-menopausal women with knee osteoarthritis were selected based on the inclusion and exclusion criteria and were assigned into two groups with 9 subjects each. Group A experimental group are provided with retro-walking along with conventional exercises and Group B conventional group was treated with Static Quadriceps, Terminal Knee Extension, IFT exercises and performed it for 3 months and the study period was 3 weeks. Pre-test and post-test were assessed using Western Ontario and McMaster Universities (WOMAC) scale, Modified Sphygmomanometer Test (MST), Timed Up to Go Test (TUGT).

Result: In paired t test, pain, muscle strength, functional mobility shows significant improvement in Experimental group and Conventional group. In unpaired t test, pain, muscle strength, functional mobility expressed significant improvement in Experimental group and Conventional group. The mean difference shows more significant improvement in theExperimental group although both groups showed improvement, the scores in the experimental group are significantly higher than that of the conventional group

Conclusion: The study concluded that experimental group shows better in pain reduction, quadriceps muscle strength and functional mobility than control group.

Abstract 72

TO ESTIMATE THE EXTENT OF CLINICAL DECISION ERROR IN PHYSIOTHERAPEUTIC MANAGEMENT OF LOW BACK PAIN.

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Background: Low back pain is a worldwide health problem with life prevalence of approximately 80%, a global point prevalence of 9.4% and one of the most common reasons for patients to seek medical treatment. Physiotherapy interventions were commonly used with management of low back pain and from previous studies it appears to be eclectic and not always according to the evidence base practice. For Physiotherapeutic management of low back pain. As there is no evidence for recommending it. Clinical Decision making is dependent, cognitive process or critical thinking used in the evaluation and management of a patient. Most error in clinical reasoning are due to frailty of human thinking under condition of complexity, uncertainty, and pressure of time and not because of incompetence or inappropriate Knowledge.Aim: The aim of this study was to estimate clinical decision errors in physiotherapeutic management of low back pain.

Methods: Study design was cross sectional studies. We have chosen 50 Clinical decisions of physiotherapists with average age of 28 years. For data analysis in order to gather the information questionnaire was filled, by getting information of physiotherapists by observing the treatment provided to patients for LBP like various exercise and modalities were recorded. All the information of patient, Therapist and other interventions were noted.

Results: Among all the physiotherapists 2% was treating >4 patients/day. Most common age of patients with back pain was above 40 years. It was reported that patients more commonly came for treatment in chronic phase (72%) rather than acute or sub-acute (28%). Electrotherapeutic modalities were used for intervention of Low back pain (Airaksinen et al, 2006). Our study suggests that the exercise for managing low back pain were lumbar extension exercise (60%) followed by static abdominal exercise (46%) and bridging and straight leg raise exercise (40%). But there is conflicting evidence regarding the effectiveness of program involving mainly trunk flexion exercises, Strengthening, Stretching and extension exercise. So, we do not give recommendations on specific type of exercise to be undertaken for LBP. For manual therapy, a guideline suggests that it is consider short course of manual therapy as a treatment of LBP. But our data suggest that only (10%) of therapists were giving the manual therapy for management ofLBP**.**

Conclusion: The current study has provided an overview of physiotherapy management of LBP. Our data suggests that therapists first treatment preference was exercise therapy (50%), electrotherapy (40%) and very few for manual therapy (10%).This study has identified a high use of passive modalities and specific exercise for management of LBP that do not accord with present international guidelines. So, here is remarkable clinical decision errors in physiotherapeutic management of Low backpain.

Abstract 73

EDUCATIONAL ACCURACY AND QUALITY OF YOU TUBE VIDEOS ON MAITLAND MOBILIZATION TECHNIQUE FOR SHOULDER JOINT

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Background: Visual learning is the best way to enhance students' knowledge. So students are more prone towards social media, especially video sharing websites such as YouTube. You tube is a popular video sharing web site that can be accessed as a teaching source. Acquiring and sharing medical information via this way offers electronic learning possibilities and has gradually changes the learning habits of medical professionals. In the field of physiotherapy mobilization is the key intervention for improving patient's outcome.

Objective: To evaluating the Accuracy and Quality of the information in Maitland mobilization technique for shoulder Joint videos shared on YouTube.

Method: The YouTube video database was systematically searched using search terms related to Maitland joint mobilization technique for shoulder joint. Three independent reviewers assessed videos for procedural technique and educational value using a 5-point global score, ranging from 1 = poor quality to 5 = excellent educational quality, HONcode and JAMA criteria.

Result: The average video length and hits per months were 3.29 ± 2.27 and 1185 ± 1187 minutes, respectively. The most viewed video

had 2359 hits per month and duration of 1:40 minutes. A lack of correlation between video length and hits per month (P= 0.63) indicates that video popularity was independent from its length. In most of the videos, just explain about the particular types of glide (90%) followed by position of patient and therapist (33.33%) and explain the grades of mobilization (33.33%). But less focus on overall procedure of mobilization (13.33%) and explain 2 about appropriate oscillation and repetition (15.55%). Global quality score and JAMA benchmark suggest most of the published videos are poor quality and less accurate.

Conclusion: This study concludes that lower quality shoulder joint Maitland mobilization technique information on YouTube tends to be more popular than objectively better-quality information. The low-average mean GQS, JAMA benchmark and HONcode for overall accuracy and quality suggests an improvement of future video-based instructional materials on YouTube would be necessary before regular use for teaching could be recommended.

Abstract 74

EFFECTIVENESS OF EXERCISES PERFORMED OVER UNSTABLE SURFACES ON PAIN, LOWER EXTREMITY FUNCTION, BALANCE &STRENGTH IN POST- MENOPAUSAL FEMALE WITH OSTEOARTHRITIS

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BACKGROUND: OA is the most common form of arthritis. OA is a degenerative, non-inflammatory progressive disorder of movable joints, particularly weight bearing joints. Hip and knee OA is the most prevalent forms of OA with the overall prevalence of knee OA is 28.7%. The prevalence of knee osteoarthritis is 22% - 32% in India; commonly females are more affected than males as the age progress. OA knee increases with age (older than 50 years), especially in women. Literature review unveils that that the prevalence of knee joint osteoarthritis shows an upward trend in females during perimenopausal period and continues to soar up throughout menopause. Studies suggest that declining levels of estrogen during menopause increases a women's risk of acquiring osteoarthritis

.**OBJECTIVES:** To compare the effectiveness of exercises performed on an unstable surface along with conventional therapy on pain, lower extremity function, balance and strength in post-menopausal female patients with tibio-femoral osteoarthritis.

METHOD: The subjects were 30 post-menopausal female patients diagnosed with degenerative osteoarthritis of the knee, they were

divided into an experimental group (n=15) and a control group (n=15). The experimental group performed exercise over unstablesurface along with conventional & control group performed the conventional exercises.

RESULTS: After the intervention, the experimental group showed statistically significant improvements in the variables.

CONCLUSION: Exercise over unstable surface improved the symptoms of patient with osteoarthritis. Unstable surface might be helpful for improving the muscle strength, pain, balance as well as improving physical function related to the knee joint.

Abstract 75

THE EFFECTIVENESS OF LOW INTENSITY RESISTANCE TRAING WITH& WITHOUT BFR TO IMPROVE QUADRICEPS STRENGTH, HYPERTROPHY& KNEE ROM AMONG KNEE OSTEOARTHRITIS

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Background: Osteoarthritis of knee is a degenerative joint disease typically the result of tear&wear and progressive loss of articular cartilage. It is most common in elderly. Blood flow restriction (BFR) is a training method in which partially restricting arterial inflow and fully restricting venous outflow in working musculature during exercise, normal exercises are performed at about 20-30% of 1RM. BFR can be applied during periods of immobilization to decrease disuse muscle atrophy of limbs. BFR combined with exercise which enhances muscular development.

Objective: "To compare the effects of low intensity resistance training and low intensity resistance training with blood flow restriction on improving quadriceps strength, hypertrophy and knee range of motion in patients with knee osteoarthritis".

Methods: 30 subjects are selected based on the inclusion &exclusion criteria and divided into 2 groups. Experimental group receive low intensity resistance training with BFR techniques and control group receive low intensity resistance training only.Five minute warm up exercises and pain-relieving modality will be given both groups. Pre

and post reading of hand-held dynamometer, goniometer measurement and quadriceps muscle girth will be recording each subject before and after the 2 months treatment period**.**

Result: After the intervention experimental group showed statistically significantly improvements in variable.

Conclusion: In knee osteoarthritis, BFR with low intensity resistance training is very useful because it improves quadriceps strength, hypertrophy and knee range of motion in patients with knee osteoarthritis.

Abstract 76

CORRELATION OF KNEE INJURY AND OSTEOARTHRITIS OUTCOME SCORE (KOOS) WITH ANTHROPOMETRIC MEASURE AND FLEXIBILITY IN SUBJECTS WITH KNEE OSTEOARTHRITIS

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Objective: The objective of the study is to find out the correlation of knee injury and osteoarthritis outcome score (KOOS) with anthropometric measures and flexibility in subjects with Knee OA.

Background: Osteoarthritis knee is the most common joint disease that affects the aged people and result in long term disability. Osteoarthritis knee cause degenerative joint disease, wear and tear changes occurring in old age due to weight bearing and loss of articular cartilage. It occurs in 12.1% population approximately. Increased BMI is a well-recognized risk factor for radiographic knee osteoarthritis however, the contributions from joint mobility also have an impact on subjects with knee osteoarthritis

Methodology: This is an observational study of analytical type, total of 100 subjects. 47 male and 53 female subjects aged above 55years with pre-diagnosed knee osteoarthritis were included for the study. Subjects with knee pain for last 3 months will be included in this study by convenient sampling method. Patients with history of injuries and multiple falls, neurological disorder, visual impairments will be excluded from this study. Visual Analogue scale, knee injury and osteoarthritis outcome score (KOOS) questionnaire will be used as an outcome measure, weighing scale, goniometer were the tools

used for this study. The study was carried out at old agedhomefor3 months.

Procedure:
A total of 100 subject (both 47 male and 53 female) were selected according to inclusion criteria. They were the subjects BMI was recorded. Asked to fill KOOSquestionnaire. Based upon their response to the questionnaire, the results were analyzed statistically.

Result: Statistical analysis at the end of the study showed positive correlation of knee joint ROM and Negative correlation with BMI with respect to KOOS questionnaire. There by concluding that an increased body Mass Index (BMI) will create reduction in KOOS score following development of extreme knee joint degeneration.

Conclusion: The study can be concluded that there is significant correlation with Knee injury and osteoarthritis outcome score (KOOS) and anthropometric measures in subjects with knee osteoarthritis.

Key words Osteoarthritis, Anthropometric measures, KOOS questionnaire.

Abstract 77

EFFECTIVENESS OF BALANCE TRAINING PROGRAM ON FALL PREVENTION AND ANKLE STABILITY AMONG BEGINNERS IN DANCING PROFESSION

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Objectives of study: To evaluate the effectiveness of balance training program in fall prevention and improving the ankle stability among the beginners in dancing profession. To find out the improvement of their ankle stability and fall prevention in beginners of dancing profession.

Background: The purpose of the study was to find out the effectiveness of balance training program on fall prevention and improve ankle stability among the beginners in dancing profession

DESIGN: Pilot study

methods and measures: The thirty of both gendered younger adult beginners of dancing profession were selected under the age of(13-25 yrs.) under by the BESS Score of above 30 errors and with written informed consent form was taken from the participants and the interventionconsists of physiotherapeutic training including of balance and proprioceptive training program (daily of six weeks) and the outcomes measure are used to calculate the CAI and balance are

BESS, CAIT, Y-BT and its before and after of completion of training program to the beginners in dancing profession

.**Result:**After the intervention the subjects should shows the greater improvement in their balance (P=0.00001) by BESS AND Y-BT and the CAIT scores also (P=0.00001) which were highly significant. The result of the study is highly significant and confirmed the approach to the balance in beginners of dancing profession. And the balance training tasks is effective improvement in ankle stability and reduce the risk of fall and injuries among the beginners in dancing profession.

Conclusion: Based on the results, hence concluded that the six weeks of balance training program that would shows effective improvements in ankle stability and prevention of falls among beginners in dancing profession.

Keywords: Beginners in dancing profession, Balance training, Cumberland ankle instability tool, Balance error scoring system, Y-Balance test.

Abstract 78

"COMBINED EFFECTIVENESS OF MAITLAND MOBILIZATION TECHNIQUE AND MUSCLE ENERGY TECHNIQUE ON PAIN AND RANGE OF MOTION IN SUBJECTS WITH TEMPERO-MANDIBULAR JOINT DYSFUNCTION".

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Background and objectives: Temporomandibular joint dysfunction (TMD, TMJD) refers to pain and dysfunction of the masticatory muscles (the muscles that move the jaw) and the temporomandibular joints. The most noticeable symptom is pain, which is followed by restricted mandibular movement and noises from the temporomandibular joints (TMJ) during jaw movement15. Although TMD is not a life-threatening condition, it can have a negative impact on quality of life because the symptoms can become chronic and difficult to manage. TMDs are caused by a variety of factors and frequently co-occur with a number of overlapping medical conditions, such as headaches, fibromyalgia, back pain, and irritable bowel syndrome. There are numerous treatments available , but there is a general lack of evidence for any treatment in TMD, and there is no widely accepted treatment protocol. Treatments commonly used include occlusal splints, psychosocial interventions such as cognitive behavioral therapy, physical therapy, and pain medication, among others. Around 20% to 30% of the adult population is affected to some extent. TMD usually affects people between the ages of 20 and 40, and it affects women more than men.

Need of study: There is a lack of research in determining the combined effects of MET and Maitland mobilization in temporomandibular joint dysfunction.

Objectives of the study1. To determine the combined effectiveness of Maitland mobilization and MET on reducing pain while measuring VAS in subjects with TMJ dysfunction.2. To determine the combined effectiveness of Maitland mobilization and MET on improving joint AROM while measuring maximal mouth opening in subjects with TMJ dysfunction.

Methodology: Based on the inclusion criteria, 30 subjects with temporo-mandibular dysfunction were included in the study. They were divided in two groups i.e., Group A and Group B with 15 subjects in each group. Group B was the experimental group.Pre-test was conducted for both group A and group B on VAS for pain intensity and maximal mouth opening for jaw range of motionGroup A subjects were subjected to ultrasound and ROM exercise for the jaw for a period of 4 weeks. Group B subjects were subjected to ultrasound and ROM exercise, MET and Maitland mobilization for a period of 4 weeks. Post test was conducted for both group A and group B on VAS for pain intensity and maximal mouth opening for jaw range of motion.The result was recorded and analyzed statistically

RESULT: Based on the statistical analysis, the result of the study shows that there is statistically significant difference in pain, maximal mouth opening between group A and group B. However combined muscle energy technique and Maitland mobilizations shows greater improvement in group A subjects with TMJ.

CONCLUSION: Based on the statistical analysis the result of the present study shows that there is statistically significant difference in pain and maximal mouth opening between pre-test and post-test in both experimental and control group. experimental groups show greater improvement in pain while measuring with VAS and MMO measuring with inch tape than the control groups. Thus, the study concludes that the intervention of Maitland mobilization and MET are

more effective than the conventional methods in improving pain and MMO in TMJ dysfunction. Therefore, the study rejects the null hypothesis and accepts the alternative hypothesis.

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EFFECTIVENESS OF PILATES EXERCISES VERSUS CONVENTIONAL PHYSIOTHERAPY IN SUBJECTS WITH CHRONIC NON-SPECIFIC LOW BACK PAIN-A COMPARATIVE STUDY\

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Background: Chronic low back pain [CLBP] is the most disabling musculoskeletal disorder with altered functioning of the lumbar core muscles. Approximately 90% of LBP [both acute and chronic] is considered nonspecific. Chronic low back pain results in reduced muscular flexibility, poor spinal ROM, low muscular strength and endurance- all of which will ultimately decline ones physical performance.Pilates exercises are designed to increase muscle strength and endurance, as well as flexibility and to improve posture and balance. Pilates method is based on six principles. These are concentration, control, centering, breathing, precision and flow.Conventional physiotherapy treatments including hot pack, TENS and ultrasound have been proven to reduce inflammation, relieve musculoskeletal symptoms and joint stiffness, thereby providing symptomatic relief in chronic low back pain.

Objectives: To find out the effectiveness of Pilates exercises on pain, range of motion and function in subjects with chronic nonspecific low back pain.To find out the effectiveness of conventional physiotherapy on pain, range of motion and function in subjects with chronic nonspecific low back pain.To compare the effectiveness of Pilates exercises and conventional physiotherapy in subjects with chronic nonspecific low back pain. study design: Comparative experimental design

Methodology: Based on the inclusion criteria, 30 subjects with chronic non-specific low back pain will be included in the study. The subjects will be allotted into two groups i.e., group A (experimental group) and group B (control group) with 15 subjects in each group.Group A received Pilates exercises such as Bridge, Saw, Mermaid, Swan and Jackknife situp and Group B received

conventional physiotherapy including Hot pack therapy for 20 minutes, Ultrasound for 5 minutes and TENS for 30 minutes. In both groups subjects will be treated in 3 sessions per week for 6 weeks and each session lasting for 1 hour.

Results: Based on the statistical analysis, the result of the present study shows that there is statistically significant difference in pain, ROM and function between pretest and posttest in both experimental and control group. Experimental group shows greater improvement in pain while measuring with VAS, range of motion with MMST and level of function with ODI than control group.

Conclusion: The study concluded that, pilates exercises are more effective than the conventional methods in improving pain, ROM and function in chronic non-specific low back pain patients.

Keywords:'Non-specific low back pain', 'chronic low back pain', 'oswestry disability index'.

Abstract 79

EFFECT OF SEMONT MANEUVER EXERCISE ON QUALITY OF LIFE IN PATIENTS WITH BENIGN PAROXYSMAL POSITIONAL VERTIGO (BPPV).

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Introduction: Benign paroxysmal positional vertigo (BPPV) is the most common peripheral vestibular end-organ disease. Bppv will have rotating dizziness caused by sudden changes in the position of the head. This is due to head movements cause the fragments to move, which stimulates the cupula of semicircular canal inappropriately and excites the ampullary nerve, resulting in vertigo. The vestibular maneuvershas shown the improvement in the benign paroxysmal positional vertigo. This study aimed to analyze the effect of Semont maneuver on quality of life in patients with BPPV.

Methods: 30 bppv patients will be selected using convenient sample technique based on the inclusion and exclusion criteria after which detailed study procedure will be explained to the patients and written informed consent will be obtained from the patients or attenders. Based on positive Dix-Hallpike test Patients will be allocated into two groups randomly using concealed envelope method of sampling in two groups, Group A and Group B. Group A will be treated with Semont maneuver and Group B will be treated with conventional vestibular exercise. The VAP scale will be used in both pre and post-test session to assess their quality of life. In post-test, scale will be used when dix–hallpike test become negative. The post-test mean of VAP scale for Group A and Group B showed statistically significant difference (P Value <0.001). The analysis done by the statistical data also revealed that the VAP scale score of semont maneuver showed an increased effect compared to its pre-test values, whereas the post VAP scale score of conventional vestibular exercise showed a reduced effect when compared to its pre-test values. Among comparison the data within the groups it is evident thatsemont

manuver is more effective in comparison with the conventional vestibular exercise.

Conclusion: Findings of this study conclude that semont manuver can be used effectively on quality of life in patients with benign paroxysmal positional vertigo (bppv).

Abstract 80

EFFICACY OF COGNITIVE BEHAVIORAL THERAPY ON FATIGUE FOR POST OPERATIVE SPINAL CORD INJURY: A CASE STUDY

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Introduction: Cognitive behavioral therapy is found to be a popular treatment technique to reduce the symptoms and disability caused by fatigue.
Objective: To find the efficacy of cognitive behavioural therapy to reduce fatigue level for the subject with postoperative spinal cord injury.
Setting: Saveetha Medical College and Hospital, Thandalam, Chennai.

Methods: The participant was an individual with D9-D12 Laminectomy. Cognitive behavioral therapy was focused on fatigue, to reduce the fatigue level so that the participants quality of life can be improved. The participant will be tested before and after sessions by using Fatigue Severity Scale
Results: The participant's ability to reduce the fatigue level from 52 to 31 to improve the quality of life 37 to 62 with the cognitive behavioral therapy for the subject with post-surgical removal of space-occupying lesion D9 – D12.

Conclusions: This study concludes that cognitive behavior therapy helps to improve the quality of life in post-surgical removal of space-occupying lesion D9 – D12 subject, by reducing the fatigue.

Keywords: Fatigue, Quality of life, Fatigue Severity Scale (FSS), Quality of life Score (QOLS), Cognitive behavioral therapy.

Abstract 81

EFFECTIVENESS OF DIRECTIONAL LINGUAL EXERCISE ON SUBJECTS WITH POST STROKE DYSPHAGIA.

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Background: Dysphagia is the common swallowing problem that occurs after stroke which has an increased risk of death, dependency, decrease in quality of life, pneumonia occurrence, and causes prolonged stay in hospital. So, in order to prevent these complications, the treatment should be aimed in accelerating the recovery of swallowing function and reducing these risks. Hence this study aims to evaluate the effectiveness of the directional lingual exercise on post stroke dysphagia patients.

Objective: To evaluate the effect of directional Lingual exercise on tongue muscles strength, endurance and swallowing function in subjects with post stroke dysphagia.

Methodology: A quasi-experimental study was done on 30 subjects who were willing to participate. The patients were selected using convenience sampling technique based on inclusion and exclusion criteria. All the subjects were undergoing the pre-test measurement that include lingual strength and endurance measurements was taken. Followed by this the subjects were given directional lingual exercise for a period of 10 session/day, 5 days/ week for 4 weeks. Post-test evaluation was conducted as the same in pre-test. The values were tabulated and statistically analyzed.

ResultsIt was observed that there was a significant improvement in swallowing function, tongue strength and endurance ($P<0.001$) in participants with post stroke dysphagia.

Conclusion: From the Result it has been concluded that this intervention showed the better resultfor improving the tongue strength and endurance. Hence this technique can be used for the rehabilitation of the subjects suffering from post-stroke dysphagia.

Abstract 82

EFFECT OF VISUAL CUE TRAINING ON BALANCE AMONG ACUTE STROKE.

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Background: Balance disorders manifest as a germinating area of public health concern, due to its conjunction with falls amidst the elderly dwellers in the community. It is estimated that nearly 60% of the patients with stroke are significantly disabled following the occurrence of stroke. The main objective of the study is to find the effectiveness of visual cue training on balance among acute stroke patients.

Methods: Totally 15 individuals with acute stroke, of age above 18 years, both gender, MMSE score between range 21-30, brunnstrom recovery stage 2 and above were included in the study. While the individuals with history of musculoskeletal, cardiac, or neurological impairment other than stroke, individuals with hemineglect or visual impairments were also excluded. These subjects were given visual cue training for balance along with the conventional therapy for about 30 minutes to 1 hour per session for a total of 20 sessions in 4 weeks study period. Pre and posttest measurements were calculated using Berg Balance Scale (BBS). The post-test mean value of BBS showed statistically significant difference (P value <0.001). From the comparison of pre and post-test values, it is evident that the visual cue training when given along with the conventional therapy helps to increase the balance among acute stroke patients.

Conclusion: Finding from this study concludes that visual cue therapy along with the conventional therapy is effective in improving the balance among acute stroke patients.

Abstract 83

A SYSTEMATIC REVIEW ON EFFECTIVENESS OF ULTRASOUND THERAPY IN ADHESIVECAPSULITIS

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Background: Adhesive capsulitis (AC) is a common pathology that occurs in shoulder joint which leads to pain and restricted range of motion with spontaneous complete or near-complete recovery over a varied period of time. The aim of the study is to determine the effectiveness of ultrasound therapy in Adhesive capsulitis.

Methodology: Study designed as systemic review, Articles included are randomized controlled clinical trial and experimental studies. Total available article was 177 articles, which are collected from PubMed Central, PEDro, Rehab data, Research Gate, and SAGE Journals. The keywords used are Ultrasound therapy, Adhesive capsulitis, Pain, range of motion and function of the shoulder.

Results: Here, 6 studies were included for the review in which four of them were randomized Controlled trial and two experimental studies. Based upon the outcome measures delivered by those studies; we reviewed certain areas of interest such as Pain, range of motion and function of the shoulder joint. In those 4 studies suggest using ultrasound therapy and assistive exercises in adhesive capsulitis is found out to be having appreciable improvement in their daily activities and 2 studies suggest using ultrasound therapy for adhesive capsulitis doesn't seem to be effective in reducing pain and improving range of motion.

Conclusion: By reviewing these studies, we conclude that therapeutic ultrasound plays an assistive role in reducing pain and improving ROM in individuals with adhesive capsulitis. In future strong randomized controlled trials with good methodological quality are still needed to evaluate the effectiveness of ultrasound therapy in adhesive capsulitis.

Abstract 84

EFFICACY OF PHYSIOTHERAPY MANAGEMENT AMONG IT PROFESSIONALS WITH BURNOUT SYNDROME DURING COVID 19 PANDEMIC

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Introduction: Burnout is a state of emotional, physical and mental exhaustion caused by excessive and prolonged stress. It occurs when the individual feels overwhelmed, emotionally drained, and unable to meet constant demands. As the stress continues, the individual begins to lose interest and motivation.Burnout weakens the energy of an individual which reduces productivity and leaves the individual helpless, hopeless, cynical, and resentful. Thus, an early diagnosis of this burnout syndrome has to be done and an effective physio-therapeutic intervention has to be incorporated at the earliest to prevent the level of progression and complication of burnout syndrome. This study aimed to identify the effectiveness of physio-therapeutic intervention for burnout syndrome.

Methods: Total of 30 participants were involved in the study and the study procedures were explained to all participants. According to the inclusion and exclusion criteria, participants were involved into the study with their willingness and informed consent was obtained. Participants were randomly divided into two groups using random naming calling method with 15 members in each group. The control groupreceived Diaphragmatic Breathing Exercises along with Bhastrika Pranayama where as Experimental group received Jacobson's Relaxation Technique alongwith Bhastrika Pranayama. Pre and post to the treatment the Maslach Burnout Inventory Scale scores were used to assess the level of burnout. The data collected were tabulated and statistically analyzed. Data analysis shows that there is significant reduction in the level of burnout among

experimental group whencomparedtocontrolgroup anditsp-value is0.001 which islessthan0.005.

Conclusion: It is concluded that Jacobsen's relaxation technique done in combination with bhastrika pranayama showed a significant improvement in reduction of burnout level.

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Abstract 85

EFFECT OF MYOFASCIAL RELEASE ON PAIN AND FUNCTION IN ADHESIVE CAPSULITIS

Shradha A. Mohite

Introduction: Adhesive capsulitis is a self-limiting condition that affects the people in their 4th to 6th decade of life. The population which is more commonly affected with this condition are often women. The diabetic group of individuals are more prone to suffer from this condition. The predominant features of this condition are pain, and restriction of joint motion which leads to stiffness of shoulder joint. Due to the restriction in shoulder joint motion the individuals suffering from frozen shoulder have greater functional disability. More commonly it affects overhead activity.Myofascial Release is a very effective, gentle and safe hands-on method of soft tissue mobilization, developed by john Barnes that involves applying gentle sustained pressure to the subcutaneous and myofascial connective tissue. Since Adhesive capsulitis affects activities of daily living it is necessary to find out the best treatment which can speed up recovery time during rehabilitation. So, the present study will be conducted with an aim to find out best treatment strategy.

Methodology: Type of study: comparative study, study of design: pretest-posttest designsampling method: consecutive sampling method, study duration:3-month, place of study: Krishna hospital, physiotherapy outpatient department, sample size:46

Result: In the present study pre interventional means of VAS score was 7.35 ± 1.23 in Group A and 7.21 ± 1.34 in Group B whereas post-interventional mean VAS score was 2.52 ± 0.73 in Group A and 1.96 ± 0.82 in Group B respectively. Inter group analysis of VAS score was done by using Mann-Whitney test.

Conclusion: The present study concludes that effect of myofascial release on pain and function had significant improvement clinically and statistically on SPADl score, VAS and ROM thus facilitating functional outcomes. Thus, this study accepts the alternate hypothesis.

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Abstract 86

"COMPARATIVE EFFECTS OF PERCUSSION THERAGUN VERSUS PHYSICAL ACTIVITY IN NON-SPECIFIC NECK PAIN IN YOUNG ADULTS- A RANDOMIZED CLINICAL TRIAL"

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Background The percussion theragun uses fast oscillatory back and forth movements to produce vibrations of different frequencies. These vibratory frequencies are then subjected superficially to the skin which then reduce local and systemic changes. Handheld percussive massage treatment has acquired fame as of late, for both remedial use and in sports practice. It is utilized with the objectives of expanding adaptability and execution, in addition to quicken recovery. Physical activity is any movement that uses energy. Physical activity has a major impact on health. Some effects are well known; as a main part of energy expenditure, physical activity has a great influence on energy balance and body composition. Physical activity also helps improves strength, flexibility and when practiced properly it also helps in faster recovery. With both the possible treatment options, the study raises the question of which of the two produces better results in subjects with nonspecific neck pain in terms of reduction of pain and increase in range.

Objectives: Both physical activity and percussion using the theragun have positive effects on pain relief and ROM. The purpose of this study was to evaluate the therapeutic effects of the percussion theragun as compared to physical activity and try and come up with the best possible treatment plan for non-specific neck pain. The range of motion and VAS values for pain before and after the treatment values are to be measured. Evaluate the data and figure out which of the two interventions is better.

Method and Measures: The study was conducted on 36 subjects with non-specific neck pain who were given 3 consecutive sessions (in a span of 3 days) of intervention. Through randomized method subjects were divided into conventional (physical activity) group and the percussion theragun group. Outcome measures such as VAS (visual analogue scale) and Neck range of motion were assessed.

Results: Both the groups showed improvement in the parameters of outcome measures. The percussion theragun group showed significantly greater improvement than the physical activity group.

Conclusion: The current study provided the evidence to prove that the protocols used in this study show significant reduction in pain and range of motion in subjects with non-specific neck pain in both the groups. Both the physical activity protocol and therapy with the percussion theragun proved to be effective in a 3-day protocol.

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Abstract 87

PREVALENCE OF PSYCHOSOCIAL IMPACT AMONG COVID-19 PANDEMIC HEALTHCARE WORKERS: A SYSTEMATIC REVIEW

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Background: A novel corona virus disease was identified in Wuhan, China and later it spread it as pandemic.world health organization as declared the name as covid-19. It is severe respiratory disease which are caused by exposure of infective droplets and physical contact.During the covid-19 pandemic the health care worker as major role in treating and caring the covid-19 patient and other health related condition. In this serious situation the health care worker in the pandemic has greater impact in psychosocial factor.

Methodology:we systematically searched potentially eligible articles on search engine in PubMed, Google Scholar and Web of Science database on August 2020.Using following combination of key terms "Covid-19, Psycho*, health care workers, physicians, nurses, physicaltherapist, dental, pandemic, Medical staff, SARS".The article was selected according to eligibility criteria of the study.

Results: The mean prevalence of depression, anxiety, stress and insomnia is 28.6%, 39.7% ,51.5%,30.4%. and from the meta-analysis of sub group Rate Ratio of depression, anxiety,stress and insomnia is 1.33[1.17,1.52],1.49 [1.28,1.73],1.67 [0.69,4.04]and 1.36 [1.27,1.45].

Conclusion: The study concludes from the systematic review and meta-analysis during covid-19 pandemic the HCW has significant impact of psychosocial factor. HCW who involved in the human contact and rapid decision- making skills are more vulnerable to have psychological impact.

Abstract 88

EFFECT OF FARADIC CURRENT IN IMPROVING GAIT FUNCTION IN ACUTE STROKE.:

Y. *Vijay Chandhini (Presenting Author), PrathapSuganthirababu, A. Kumaresan, S. Vignesh, Divya Lakshmi. Saveetha college of Physiotherapy, SIMATS, India.*

Introduction: Stroke is one of the most common causes of death and is the main cause of persistent and acquired disability in adults worldwide. The Present study examines whether the Faradic current given during acute stroke, is more effective in promoting gait recovery of the lower extremity and walking ability in rehabilitation program. This study aimed to analyze the effect of the Faradic current in the reduction of ankle dorsi-flexor spasticity and to improve gait in post stroke patients.

Methods: 30 individuals were included according to the selection criteria and they were explained about the procedure and informed consent was obtained. The subjects included in the study was randomly allocated in Intervention will be given the Faradic current along with the conventional therapy with the regular exercise protocol. The pre-test measures of DYNAMIC GAIT INDEX are assessed and the same will be assessed and recorded after 4 weeks of training as post-test values. The post-test means of DGI scale showed statistically significant difference (P Value <0.001). The analysis done by the statistical data also revealed that the DGI scale score showed an increased effect compared to its pre-test values, whereas the post DGI scale score showed a reduced effect when compared to its pre-test values. Among the data within the intervention group, it is

evident that faradic current along with conventional therapy is more effective.

Conclusion: Findings of this study conclude that Faradic current along with conventional therapy can be used effectively in improving gait performance in acute stroke patients.

Abstract 89

PREVALENCE OF NEUROLOGICAL DYSFUNCTIONS ASSOCIATED WITH COVID 19 HOSPITALIZED PATIENTS.

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Introduction: The condition of Coronavirus Disease (COVID-19), linked with SARSCoV-2 causes mainly fever and respiratory signs such as Pneumonia, but least was known about the neurological manifestation. A previous study conducted in various hospitals concluded the direct neurological symptoms associated with COVID 19. The importance associated with identifying and close neurological surveillance of the patients for recognition of the future complication. The study is done to understand the prevalence of the neurological complication seen in patients categorized under Central Nervous System and Peripheral Nervous system.

Method: Patients admitted under Saveetha Medical college and Hospital with the positive infection of SarsCov2 were taken for the study. All the patients admitted in the ward and Intensive Care Unit were assessed for any neurological complications. The assessment was cases on the various ailments as a result of the COVID 19. The patients were assessed musculoskeletal, cardiovascular, pulmonary, urological and psychological disorders. The prevalence of the symptoms was noted in Yes or No category. And the final overall prevalence was calculated based on the obtained values.

Conclusion: Based on the data collected from admitted patients in course of 2 months, 10.9% were affected with Acute Cerebrovascular accident post COVID19 disease. 49.1% affected with anosmia and 65.5% of population had Ageusia (Loss of smell). Patients were also found to present with hospital acquired delirium about 5.5%. Patients were also found with post infection Encephalopathy, Myalgia (11%), Dyspnea (8.3%).

Keywords: COVID19, Anosmia, Cerebrovascular disease, Ageusia,

Abstract 89

EFFECT OF ANKLE MOBILITYAND STRENGTHENING EXERCISE ON BALANCE AMONG OLDER ADULTS

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Background: Balance can be viewed as the ability to activate muscles with the amplitude and timing necessary to control movements of the body to prevent a fall during a range of tasks e.g., standing, reaching, stepping, walking. Falls result from the interaction between environmental hazards and physiologic risk factors, such as muscle weakness, poor balance, impaired vision, and slow reaction.

Objective: The objective is to determine the effect of a two-week exercise program in ankle mobility and strengthening exercises on balance in community dwelling older adults.

Methods: Total of 30 subjects was selected using convenience sampling technique based on inclusion and exclusion criteria. Subjects will be allocated in Experimental group (Group A=15) underwent training with ankle mobility and strengthening exercises and (Group B=15) was the control group.

Conclusion: Ankle mobility and ankle strengthening exercises showed significant improvement in balance. Progressive home exercises program of ankle mobility and ankle strengthening showed positive influence on balance and mobility in healthy community dwelling older adults.

Abstract 90

COGNITIVE BEHAVIOURAL THERAPY AND PHYSICAL EXERCISE FOR IMPROVING MENTAL HEALTH AND QUALITY OF LIFE IN PATIENTS WITH COVID-19: A RANDOMIZED CONTROLLED TRAIL

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Introduction: The World Health Organization in March 2020 has announced that COVID 19 is a world pandemic because the number of infected cases increases rapidly. In this pandemic, mental health issues have been reported from all over the world. The patients with COVID 19 also may experience severe psychological symptoms where it may occur even after recovering from the infection. Furthermore, these situations which impair patients' ability to perform daily living activities and quality of life. This study aimed to investigate the effect of cognitive behavioral therapy and physical exercise on mental health and quality of life in COVID 19 patients.

Methods: 60 patients with COVID 19 were included according to the selection criteria of this study. All the participants were assigned randomly into two groups as 30 in each group, experimental intervention group received physiotherapy (breathing exercise, aerobic exercise and free exercises), cognitive behavioral therapy (CBT) with routine treatment and routine intervention group followed routine treatment (including antiviral treatment, symptomatic treatment and nursing care) according to the management guidelines for COVID-19. There were three main outcome measures noted pre and post intervention including Depression, Anxiety and Stress Scale - 21 Items (DASS-21), World Health Organization Quality-of-Life Scale (WHOQOL-BREF), Rate of Perceived Exertion (RPE). The post-test data values of RPE and DASS significantly decreased in the experimental intervention group (P value < 0.001); While, WHOQOL

BREF scale values significantly increased in the experimental intervention group ($P < 0.001$).

Conclusion: The current study indicated that 2 weeks of mild to moderate-intensity physical exercise and CBT improved the severity and progression of COVID 19 patient's mental health and quality of life.

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Abstract 91

EFFECTIVENESS OF LUMBAR STABILIZATION EXERCISES IN LOWBACK PAIN FOR HEALTHCARE PROFESSIONALS: A SYSTEMATIC REVIEW

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Background: Health care professionals are highly skilled workers, they experience significant physical and psychological demands in their daily life such as shift work, long hours standing, higher patient load and overtime duties. Hence Low back pain is a common problem faced by majority of the health care professionals. The aim of the study is to determine the effectiveness of lumbar stabilization exercises in low back pain in health care professionals due to repetitive trauma and strains in their daily routine while handling patients.

Methodology: Inclusion criteria was Randomized or quasi-randomized controlled clinical trial studies and Experimental study design. Sample size was 203 articles, 71 article was collected from PubMed, 105 article from Research gate, 15 from google scholar and 12 articles from Cochrane library. Methodology of the Study was designed as systemic review.

Results: Out of 203 published studies, 10 articles describe about effectiveness of lumbar stabilization exercise in low back pain and prevalence of low back pain in health care professionals, and 7 articles shows the effectiveness of lumbar stabilization exercise in reducing low back pain.

Conclusion: By reviewing the study, we conclude that low back pain is the most common musculoskeletal disorder in health care professionals and lumbar stabilization exercise is effective in reducing the chronic LBP.

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Abstract 92

A SYSTEMATIC REVIEW OF EFFECTIVENESS OF INTEROSSEI MUSCLE RE-TRAINER IN HAND INJURED PATIENTS

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Background: Palmar and Dorsal interossei were trained conventionally by rubber band and card board or paper. There is no device to train and strengthen the Palmar and Dorsal interossei muscle. Palmar and Dorsal interossei are mainly affected in traumatic hand injury. These muscles are helpful for lateral prehension for occupation like conductors, who hold the currencies in between the fingers. Interossei muscle weakness occurs in all traumatic hand injuries. These muscles has to be strengthened for all prehensile activity of hand.

Methodology: Inclusion criteria was Randomized or quasi-randomized controlled clinical trial studies and Experimental study design. Sample size was 85 articles, 25 articles were collected from PubMed, 20 articles from Research gate, 19 from google scholar and 20 articles from Cochrane library. Methodology of the Study was designed as systemic review.

Results: Out of 85 published studies, 5 articles were included for the review. The results indicate that the interossei muscle re-trainer are effective in hand injured patients and it facilitates the return of functional activities of hand.

Conclusion: By reviewing the study, we conclude that interossei muscle re-trainer which improves the strength of abductor and adductor muscles of fingers. It is effective in improving hand functions and abilities.

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Abstract 93

EFFECTIVENESS OF WORK HARDENING IN HAND INJURED PATIENT

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Introduction And Aim: To find the effectiveness of work hardening in hand injured patients.

Materials And Methods: Person with hand injury were included in this study. 42 subjects were included initially, 12 subjects were excluded later due to normal hand function found through sollerman hand function test. Remaining 30 subjects are given the work hardening program as intervention**.** Total of 30 subjects were selected using experimental sampling technique based on inclusion and exclusion criteria. All the subjects undergone pre-test before starting work hardening program. An informed consent was obtained from them. This work hardening program followed till one month. After one month the posttest were noted. All the values were tabulated and statistically analyzed.

Result: One month after program completion, sollerman hand function test score increased in all the patients who are under work hardening program. Thus, it increases the functional ability of the patients.

Conclusion: Work hardening program that includes work simulation and physical conditioning are given and supervised by physiotherapist. It seems to be effective in improving the hand functional abilities and returning the patient to their previous or altered job. Patients are advised about injury prevention. The goal is to restore the strength, power, motor control and our functional abilities of the patient, so they were asked to perform physical conditioning activities in home. Further many studies are required for long term follow up of work hardening program.

Abstract 94

EFFECT OF NON-THRUST OSCILLATORY TECHNIQUE VS NON-THRUST SUSTAINED JOINT-PLAY TECHNIQUE FOR PATIENT SUFFERING FROM CHRONIC PERIARTHRITIS SHOULDER.

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Introduction: Patients with frozen shoulder suffer from significant pain and progressive limitation of shoulder active and passive movements. Such clinical problems are primarily treated conservatively. Physical therapy is an integral part in treatment of frozen shoulder. The main objective is to find out the effect of non-thrust oscillatory technique vs non thrust sustained Joint- play technique for patient suffering from chronic periarthritis shoulder.

Methodology: Thirty patients were randomly and equally distributed into two groups: Group A was given non-thrust oscillatory technique and Group B receive non thrust sustained Joint- play technique. Treatment was given 3 times per week, for 6 consecutive weeks. Patients were evaluated before and after treatment with regards to shoulder pain severity and functional disability using the Shoulder Pain and Disability Index as well as for shoulder flexion, abduction, external and internal rotation range of motion using a Goniometer. With the help of goniometer, the achieved ROM was recorded and documented. By the treatment given for one month both group shows significant increase in ROM in affected shoulder joint.

Conclusion: Findings of this study shows that group which perform non thrust sustained Joint play technique achieve more range of motion in the affected shoulder joint.

Keywords: Goniometer, limitation, oscillator technique, disability, treatment

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Abstract 95

IMMEDIATE EFFECT OF KINESIO TAPING VERSUS MCCONNELL TAPING IN PATELLO FEMORAL JOINT SYNDROME DURING FUNCTIONAL ACTIVITIES

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Background: Patellofemoral pain syndrome (PFPS) is a condition presenting with anterior knee pain or pain behind the patella (retro-patellar pain). The patellofemoral pain syndrome is commonly in athletes and normal population also especially age group between 40 to 50. Kinesio taping and McConnell taping technique theorized to be an effective treatment to improve physiological problems based on functions of the tape.

Objective: To find out the immediate effect of Kinesio taping versus McConnell taping in patellofemoral pain syndrome subjects during functional activities- stair ascent, stair descent and squat lift

.**Methods:** An experimental study design with two groups, 30 subjects with patellofemoral pain syndrome was randomized. 15 subjects into each Kinesiotaping group and McConnell group. Kinesiotaping group received patellofemoral kinesio taping technique and McConnell group received McConnell taping technique. Outcome measure pain was measured using visual analogue scale during pre and post taping pain levels that were measured during three functional activities: stair ascent, stair descent and squat lift.

Results: When analysed within the group, there is statistically significant improvement in post pain levels in KT and MT group during stair climbing, stair descent and squat lift. When compared measuring of pre and post pain levels between two groups, there is a significant change in pain level between Kinesio taping and McConnell taping.

Conclusion: The study concluded that Kinesio taping, shown immediate effect on reducing pain during functional activities such as stair climbing, stair descent and squat lift with greater percentage of pain reduction than McConnell taping**.**

Keywords: Retropatellar pain, anterior knee pain, kinesio taping, McConnell taping, functional activities

Abstract 96

A COMPARATIVE STUDY OF EFFECTIVENESS OF STRETCHING VS LOW DYE TAPING ALONG WITH MYOFASCIAL RELEASE TECHNIQUE IN PATIENTS HAVING PLANTAR FASCITIS

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Background: Plantar fasciitis is a painful condition caused by inflammation of insertion of the plantar fascia. The pain is usually at the bottom of the foot near the heel. It is especially seen among older individual and is also more common in runners and volleyball players. There are many treatments available for improving the foot function and to decrease the pain but here, we have taken stretching techniques and low dye taping both along with myofascial release technique.

Method: This is an experimental study with 20 participants of ages between 40 to 60 years of both genders. All the participants were randomly divided into two groups each containing 10 members. Group A were given stretching along myofascial release whereas Group B were given low dye taping along with myofascial release. Pre and post treatment data were obtained with Visual analogue scale (VAS) and foot function index (FFI) to assess pain and foot function respectively**.**

Conclusion: With the collected data we can see that Group A - stretching along with myofascial release and Group B - low dye taping along with myofascial release were both effective in decreasing the pain intensity and increasing the foot function but it is evident that Group A - stretching along with myofascial release is more effective than low dye taping along with myofascial release.**Key Words**: Plantar fasciitis, stretching, myofascial release, low dye taping, visual analogue scale (VAS)

Abstract 97

PREVALENCE OF MECHANICAL NECK PAIN IN CHRONIC SMART PHONE USER AMONG ADOLESCENT

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Background: Mechanical neck pain is one among the most common problems.This is also referred as simple or nonspecific neck pain. More than half of people develop about of mechanical neck pain at some time in their life. The causes of mechanical neck pain include minor injuries,sprains to muscle or ligaments in the neck. Bad posture is also a common cause ,for example mechanical neck pain is more common in smart phone user among adolescent. Mechanical neck pain usually does not cause weakness or numbness in arm or hand because the problem is not due to pressure on the spinal nerve.

Objective: To find out the prevalence of mechanical neck pain in chronic smart phone user among adolescent.

Methodology: The study was cross sectional study.100 students from vallalar matriculation higher secondary school in Neyveli, Tamil Nadu Were recruited in this study. The sample was adolescent being 50 boys and 50 girls. Written informed consent were obtained from all parents of the student participating in the study. The sample were collected in convenient manner. Subject age between 13 to 19, who can co-operate till the end of the study, pain more than 5 through Visual Analogue Scale.

Result analysis: According to my study the result is 75 students used the smart phone incorrectly with the flexion of cervical spine. The adolescents who used the smart phone more than 10 hours per week showed a 1.58 times greater risk of mechanical neck pain than those who use less than 10 hours and adolescents who use the phone in

wrong way had a 1.15 times higher risk of mechanical neck pain than those who used correctly.

Conclusion: The data obtained in this study showed a high rate of neck pain in the analyzed sample of adolescents.

Keywords: Prevalence, mechanical, adolescent, minor injuries, sprains, ligaments, smart phone, numbness, spinal nerve, chronic.

Abstract 98

EFFICACY OF FRENKEL EXERCISE VERSUS COWTHORNE – COOKSEY EXERCISES ON BALANCE RE-EDUCATION FOR CEREBELLAR ATAXIA

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Introduction: Ataxia, the incoordination and balance dysfunction in movements without muscle weakness, causes gait and postural disturbance in patients with stroke, multiple sclerosis, and degeneration in the cerebellum. The aim of the study was to access the efficacy of Frenkels exercise Versus Cowthorne Cooksey exercise on balance re-education for cerebellar ataxia.

Methodology: this is aQuasi-experimental study. A total of 10 samples were taken for this study. The samples were divided into two groups namely Group A and B. The informed consent was accepted by the Attender of the samples. Group A received Frenkels exercises and Group B received Cowthorne Cooksey exercise. the two experimental groups performed the exercises for 6 weeks and 3 sessions per week. The Sample were assessed by Berg Balance Scale. The pre and posttest were recorded and documented. At the end of the intervention, there was a statistically significant improvement in Berg Balance Scale in the Group B (n = 5) in comparison of Group A (n=5). When comparing inter-group changes, Berg Balance Scale showed significant improvements in favor of the Cawthorne-Cooksey group after the intervention ($P< 0.05$).

Conclusion: study demonstrated that in efficacy of Cowthorne Cooksey exercise more effective than Frenkels exercise in improving balance for cerebellar ataxic samples.

Keywords: Cerebellar Ataxia; Cawthorne–Cooksey; Frenkel; balance.

Abstract 99

A COMPARATIVE STUDY OF PNF (VS) MOBILIZATION TECHNIQUE FOR ADHESIVE CAPSULITIS AMONG DIABETES PEOPLE.

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Background: Adhesive capsulitis is a condition characterized by initially painful and later progressively restricted active and passive glenohumeral joint (GH) joint range of motion. This inflammatory condition causes fibrosis of the GH joint capsule. The condition occurs more commonly in people with diabetes and in people who have kept their arm immobilized for a long period of time. Proprioceptive neuromuscular facilitation is a more advanced form of flexibility training. PNF involves both stretching and contracting (activation) of the muscle group being targeted in order to achieve maximum static flexibility. Mobilization are manual techniques used by physiotherapist in order to improve the mobility and functions of soft tissues.

Methodology: This is an experimental study design. 10 participants were included according to the selection criteria. All the participants were randomly assigned into two groups as 5 in each group. Group A was given PNF techniques. Group B was given Maitland Mobilization techniques to improve the glenohumeral joint motion for 2 weeks. Participants taken were from the age group 35-65 years old females. The patient will be evaluated by using upper extremity functional scale of both groups after the both treatments.

Conclusion: From this study, we will be able to conclude that Maitland mobilization techniques is more effective than PNF techniques for treating adhesive capsulitis in diabetic people.

Key Words: PNF technique, Maitland mobilization technique, adhesive capsulitis, visual analogue scale (VAS), Apley's test, upper extremity functional scale.

Abstract 100

DOES SLEEP QUALITY AFFECT THE DYNAMIC BALANCE OF MEDICAL STUDENTS

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Background: According to the nationwide research team on the quality of sleep, sleep quality is superior to sleep quantity. Around 60% of students between 18-25 years of age are sleep deprived which might affect large group of students, thereby increasing the chances of impairment of important functions such as focus, information integration, vigilance and motor control performance and increased risk of Alzheimer's disease.

Objectives: To determine whether sleep quality (SQ) has any influence over dynamic balance of Medical students.

Methodology: A case-control study was conducted among Medical students of Mahatma Gandhi Medical College and Research Institute. SQ of 119 students from different departments both females and males, were recruited and assessed using the Pittsburgh Sleep Quality Index (PSQI). The participants were divided into two groups: Group A ('Good' sleep quality) and Group B ('Poor' sleep quality) based on their PSQI cut off score. The Functional Movement Score (FMS) Y-balanve Test (YBT) was used for the dynamic balance assessment and measurement.

Result: t-test for equality of means between the means of the two groups showed a statistically significant difference. Mean balance of group A was greater than group B, indicating that participants having good SQ had better dynamic balance as compared to those having poor SQ.

Conclusion: The main findings of the study suggest that poor SQ influences dynamic balance negative in medical students. Thus, SQ

should be considered an important factor while assessing the balance and the motor functions in this.

keywords: Sleep Quality, Dynamic Balance, Medical students.

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Abstract 101

PREVALENCE OF TENNIS ELBOW AMONG MAIDS

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Background: Tennis elbow or lateral epicondylitis, is a painful condition of the elbow caused by overuse. Tennis elbow is inflammation or micro tearing of the tendons that join the forearm muscle on the outside of the elbow. The forearm extensor tendons become damaged from overuse. This leads to pain and tenderness on the outside of the elbow.

Objective: To find out the prevalence of tennis elbow among maids. The maids using forearm repeatedly. Repetitive activities cause damage to soft tissue (mopping, brooming)These forceful and repeated work causes pain and tenderness over lateral epicondyle.

Method: The data collection was done using simple random sampling. 50 maids were selected according to inclusion and exclusion criteria. It was done by taking the history of working years and duration of working using Mill's test positive. The samples were collected in convenient manner. The subject age between 40-50 who can cooperate till the end of the study. Pain more than 5 through VAS scale.

Result: The tests were positive in 30% of the population. Tennis elbow is more common in maids, who working long years and duration.

Conclusion: This study concludes that the maids have a significant prevalence of tennis elbow assessed by Mill's test.

Keywords: Microtearing, repetitive, collection, inflammation, tenderness, tissue, tendon, condition, overuse.

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Abstract 102

EFFECTIVENESS OF STRAIGHT LEG STRETCHING VS MYOFASCIAL RELEASE IN PATIENT WITH HAMSTRING TIGHTNESS AMONG MEDICAL STUDENTS

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Introduction: Many stretching methods have been used to help individual increase flexibility in muscles and join flexibility is a key component decreasing injuries and helping with Rehabilitation. Poor flexibility have been found to potentially increase several musculoskeletal overuse injuries associated with low back pain and lower extremities injuries Myofascial release uses physical manipulation to release tension in facial tissue To find out the effectiveness of straight leg stretching vs myofascial release in patient with hamstring tightness among medical students.

Methodology: Who satisfied for the inclusion criteria were selected for the study after getting a informed consent. The 30 subjects instructed were randomly assigned into two group.Group A(n=15) and Group B(n=15).The subject in a Group A undergo for straight leg stretching. The subject in Group B under for myofasical release technique Group B was given for 5 days in a week for a total period of 4 weeks.The post test score of action knee extension test were measured at the end of the 4th week the obtained pretest and post test score were compared and analysis statistically. The study was conducted on total of 30 subjects in which,straight leg stretching Group there were 15 subjects and myofascial release technique there were 15 subjects. Analysis within the group show that there is a statistically significant change in means of hamstring tightness. Has reduced in myofascial release technique Group than subjects in straight leg Group. Conclusion**:** Finding of this study conclude that

the myofascial release technique canbe used. effectively in improving the flexibility of the hamstring in hamstring tightness condition.

Key words: Straight leg stretching, Myofascial release, Hamstring tightness, Rehabilitation.

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Abstract 103

EFFICACY OF COMBINED THERAPY FOR DEPRESSION AMONG STUDENTS

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Introduction: Depression is a common mental disorder affecting more than 264 million people worldwide. It is characterized by persistent sadness and lack of interest or pleasure in previously rewarding or enjoyable activities, disturbed sleep and appetite, tiredness and poor concentration. The effects of depression can dramatically affect a person's ability to function. Here, we have used aerobic exercise, hydrotherapy and relaxation techniques together as a combined therapy for alleviating depressive symptoms. Aerobic exercises include walking, running or cycling. Hydrotherapy is the application of water to the body surface to help it heal and feel better. Relaxation techniques used here are progressive muscle relaxation technique, biofeedback and breathing exercises.

Methodology: 20 students were included according to the selection criteria. All the participants were given the combined therapy that is aerobic exercise, hydrotherapy and relaxation techniques for 6 weeks. Aerobic exercises like walking, jogging and cycling were given for 30 minutes per day, 3 times per week. Hydrotherapy like water immersion and aquatic exercises were given for 30 minutes per day, 5 times per week. Progressive muscle relaxation technique was given for 20 minutes per day whereas biofeedback was given for 30 to 45 minutes per day and breathing exercises were given for 10 minutes, 2 to 3 times per day.

Conclusion: While comparing the severity score of depression before and after the course of combined therapy, there is significant change. Findings of this study conclude that aerobic exercises, hydrotherapy and relaxation techniques combined together has increased the energy and decreased fatigue among the students after 6 weeks.

Key Words: Depression, Aerobic exercises, Hydrotherapy, Progressive muscle relaxation technique, Biofeedback, Breathing exercises.

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Abstract 104

EFFECTIVENESS OF PILATES EXERCISE IN BALANCE IMPROVEMENT AMONG ELDER POPULATION

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Background: One of the leading health concerns for people over the age of 60 is falling which is often related to balance problem. As we age, we lose balance function through loss of sensory elements, the ability to integrate information and issue motor commands and due to the above-mentioned process, we lose musculoskeletal function also. Pilates exercise appears to have a greater potential in improving motor ability. There is a common consensus that the Pilates exercise techniques is effective in both stabilizing the body and for the improvement of balance.

Objective: The aim of the study is to identify the effectiveness of pilates exercise to improve the balance of the elderly population.

Methodology: About 10 individuals were included according to the selection criteria between the age group of above 65 years. Individuals were selected randomly from both genders. The participants received Pilates exercise for 1 hour for 3 times per week. The Pilates exercise was given for 10 whole weeks. Data were collected before the treatment and after the treatment that is after 10 weeks. While comparing the pre-test and post-test data we can see that there is significant improvement in balance in the treated individuals after 10 weeks.

Conclusion: From the above study it is evident that the Pilates exercise is a beneficial tool for balance re-education. Therefore, we can conclude that Pilates exercise is an effective tool to improve the ability of the body to maintain balance in elderly individuals.

Key words: Pilates exercise, elderly population, balance.

Abstract 105

PREVALENCE OF UPPER CROSSED SYNDROME AMONG DENTAL STUDENTS

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Background: upper cross syndrome is stress over the neck region due to poor posture and ergonomics, particularly sitting or standing. upper crossed syndrome is caused by weakness in one group of muscles and the tightness in other group of muscles.Dental students tend to develop this syndrome due to the nature of their practice.

Objective: The aim is to determine the prevalence of upper cross syndrome in dental students.

Methods: a descriptive cross-sectional study was conducted among dental students. A convenience sample of 50 dental students was selected based on inclusion and exclusion criteria. They were assessed by performing various special test for tightness and weakness of the muscle. Reed-co scale was used to analyse the proper alignment of head, neck and shoulder, whereas wall push test was used to access the abnormal protrusion of scapula. pectoralis minor tightness assessed by using measuring tape and craniovertebral angle by using goniometer.

Conclusion: This study concluded that there is high prevalence of upper cross syndrome in dental students. Students present with main symptoms of neck pain and also present with forward head and neck posture.

Key word: Upper crossed syndrome, dental students, Reed co scale, wall push test, special test.

Abstract 106

EFFICACY OF AEROBIC EXERCISE Vs RESISTED EXERCISE, ALONG WITH DRUG THERAPY AMONG OSTEOPOROTIC POST-MENOPAUSAL WOMEN BY USING BMD MACHINE

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Introduction: Osteoporosis is a pathological process of reduction of bone mass due to defective formation of the organic protein matrix. The mineralization is normal. There is diffuse and abnormal diminution of bone mass per unit volume. Microscopically, there is a reduction in thickness of cortex and reduction in number and size of trabeculae. There is also reduction in number of osteoblasts present, hence bone mass is severely affected. A systemic bone disease, osteoporosis manifests as gradual reduction in bone mass and degradation of bone tissue which is caused by fact that bone resorption is more fragile and therefore heightening the risk of fracture.

Methodology: In this study, the subjects were selected with the criteria of age between 50-60 years of osteoporotic post-menopausal women. This is a comparative study in which 30 females were selected with osteoporosis and are separated into 2 groups (15 members each). In group A the patients were advised with aerobic exercise, in group B the patients were advised with resisted exercise, along with medicine for osteoporosis. This study was conducted for 4 sessions/week for 3 months. Both the methods were proved to be effective in osteoporosis patients. Here, the patients were assessed by using BMD machine. This study was conducted by assessing the BMD prior to the program and post program to all 30 females.

Conclusion: Finding of this study conclude that resisted exercise along with medicine can be used effectively in improving bone mass density for osteoporotic post-menopausal women**.**

Key Words: Osteoporotic post-menopausal women, Bone mass density, Active free exercise, resisted exercise, Drug therapy, BMD machine.

Abstract 107

EFFECT OF CORE STABILITY EXERCISE PROGRAM USING THERABAND VS FLOOR EXERCISE ON ABDOMINAL GIRTH AND CORE STRENGTH IN POST-MENOPAUSAL WOMEN'S.

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Background: Menopause is one of the biggest transitions in a women's life. It leads to many anatomical, physiological as well as psychological changes in the body. Accumulation of fats in abdominal area and weight gain are also some of the major problems faced. Hence this study was carried out to find out the most effective among theraband and floor exercises in decreasing abdominal girth and increasing core strength in post-menopausal women.

Objectives: To study the effect of core stability exercise using theraband on abdominal girth and core strength in post-menopausal women. To study the effect of core stability exercise using floor exercise on abdominal girth and core strength in post-menopausal women. To compare the effect of core stability exercise program using theraband and floor exercise on abdominal girth and core strength in post-menopausal women.

Method: 40 subjects were divided into 2 groups i.e., theraband and floor exercise. Outcome measures were BMI, waist circumference, waist hip ratio, abdominal skin fold thickness and double leg lowering test.

Results: There was statistically extreme significant difference($p<0.0001$) seen in the waist hip ratio, abdominal skin fold thickness and core strength the subject receiving theraband exercise when compared with another group.

Conclusion: These results show theraband exercise as the most effective as it not only provides gravity as a challenge for muscles to work upon but also provide an additional component that is linear variable resistance which was also increased with increase in sets of exercises.

Key Words: Menopause,Core stability, theraband, floor exercises,waist hip ratio,Skin fold thickness

Abstract 108

EFFECT OF OTAGO EXERCISE FOR PREVENTION OF FALL IN ELDERLY PEOPLE

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Background: The Otago exercise program is a muscle strengthening and balance retraining program that are designed to prevent falls in elderly individuals. The Otago Exercise Program (Otago) is an individually tailored, home-based, balance and strength fall prevention program that is delivered by a physical therapist. The aim of this study is to find the effect of Otago exercise for fall prevention in elderly individuals.

Method: The sample comprised of 20 elderly individuals aged over 65 to 75 years of both male and female falling under risk of fall measured by 30 second chair stand test and 4 stage balance tests. The intervention consisted mainly strength and balance training. Intervention was done for 30 minutes every day, 5 days per week for the duration of 6 weeks. Pre and Post to Otago exercise program outcome measures were recorded and documented by using 30 second chair stand test and 4 stage balance tests.

Result: The results of p value for 30 second chair stand test (p value = 0.01) and 4 stage balance tests (p value <0.001) were recorded and documented. The outcome measures were found to be highly significant. The participants showed reduced risk of fall during post intervention assessment

Conclusion: The rationale behind Otago is that while muscle strength, flexibility, balance, and reaction time are risk factors for falls, they can easily be modified. Otago exercise program is significantly effective increasing strength of lower limb and improving in balance, gait and therefore ultimately preventing fall in

elderly individuals. Hence, Otago exercise program can be used in day-to-day clinical practice and also as a home exercise program.

Keywords: Otago exercise program, 4 stage balance test, 30 second chair stand test, fall prevention, elderly people.

Abstract 109

ATTITUDE OF UNDERGRADUATE PHYSIOTHERAPY STUDENTS TOWARDS PLAGIARISM

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Background: Research and publications have become mandatory for the undergraduate students as a part of their curriculum. However, students often knowingly or unknowingly plagiarize while designing theprotocol and publishing the article without knowing the dire consequences of it.

Objective:To study the attitude of undergraduate students towards plagiarism.

Materials and Method: A cross-sectional survey was conducted on 3rd year and 4th year physiotherapy students. 280 students enrolled in the study and the survey was conducted online by survey monkey software using the Attitude Towards Plagiarism Questionnaire (ATP). The questionnaire consists of 29 statements measuring three main factors i.e. positive attitude, negative attitude and subjective norms towards plagiarism on a 5 point Likert scale from 1-5: 1(strongly disagree), 2(disagree), 3(neither agree nor disagree), 4(agree), 5(strongly agree). Data collection and results were analyzed by the software itself.

Results: 257 of 280 students completed the survey questionnaire. Response rates for 3rd year and 4th year students was, 3rd year: 123 of 136(RR=90.4%) and 4th year: 135 of 144(RR=93.8%). 79% of 3 rd year and 65 % of 4 th year students responded positively and 49% of students from both th years had negative attitude. experience about plagiarism revealed 52% of students responded positively.

Conclusion: Since research and publication for undergraduate physiotherapy students are a new domain, knowledge on plagiarism was poor as the general attitude and experience of students were different towards plagiarism. This study insists on the need of lectures and prevent negative consequences of plagiarism.

Abstract 110

INFLUENCE OF HEALTH-RELATED MESSAGES ON SOCIAL MEDIA IN HEALTHCARE SEEKING PATIENTS.

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Background: The increase in use of social media to share health experiences and information act as a catalyst of social change that might affect the choice of patients regarding their health and it affects the way patients interact with health care professionals.

Objective: To study Influence of health-related messages on social media in healthcare seeking patients

.Materials and Method: A cross-sectional survey was conducted on patients attending Krishna Hospital, Karad, Maharashtra. The survey included 300 participants. Out of which 280 patients agreed for enrollment. A questionnaire to assess the influence of social media on health with multiple choice questions was given to the patients. Data was collected and analyzed using SPSS 26.0 version

.**Result**: A significantly higher proportion of patients without heart disease (P=.001) and obese people (P=.01) checked the authenticity of information received on social media. Social media messages influenced decision making among patients without heart disease (P=.04). Respondents without heart disease (P=.001) and obese people (P=.01) were more likely to discuss health-related information received on social media channel with a health care professional. Significant of WhatsApp users reported that health-related

information received on this platform influenced decisions regarding their family's health care (P=.001). Respondent's decisions regarding family health care were more likely to influenced when they used two or all four types of platforms (P=.003).

Conclusion: Health education in social media should be precise, verified and properly modulated by the websites rather than misguiding the patients with sensitive advices.

Abstract 111

EFFECTIVENESS OF MOTOR COGNITIVE DUAL TASKTRAINING ON STAIR PERFORMANCE AND COGNITIVECONTROL IN PATIENTS WITH TRAUMATIC BRAIN INJURY.

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Background Attention impairments following Traumatic Brain Injury are common and can lead to decreased functional mobility, slowed information processing, deficits of learning and memory of executive functions, balance as well as deficits in previously automatic Movement such as walking and stair climbing. [1] Motor cognitive dual task training improves the executive functions of the patient include cognition and dual task tolerance during functional tasks.

Objectives: The objectives of the study are to examine the effectiveness of motor cognitive dual task training for improving cognitive control in patients with Traumatic Brain Injury. To examine the effectiveness of motor cognitive dual task training on stair performance in patients with TBI.

Study Design Pre Vs Post Experimental study.

Methodology:Inclusion CriteriaTBI with GCS>/=10 Age group between 20- 40, both male and female Ability to walk >10 m independently without walking aids and physical assistance. Ability to hold a tray Ability to perform simple arithmetic calculations Ability to follow commands. Chronic TBI >/=3month post TBI.

Exclusion Criteria Intellectual Disabilities Symptoms of vertigo Visual field deficits Brain injuries other than Trauma. Patient with any other Neurological and Musculoskeletal disorders which may affect gait. Patients with cardiovascular disorders. Orthopedic

surgeries within past 6 months. Patient with hearing deficits. Patients with sensory disturbances. Rancho Los Amigo scale < level 8.

ProcedureBased on inclusion and exclusion criteria subjects were randomly divided in to two groups Group A and Group B. 15 subjects in the Group A received 60 minutes of motor cognitive dual task training while ascending and descending stairs. Participants were instructed to ascend and descend stairs at their preferred speed and to perform motor cognitive dual task with stair walking. A rest period will offer after each dual task activities with stair walking. The duration of ascent and descent of stair will be used to assess the cognitive motor interaction. 15 subjects in the group B received 60 minutes of conventional exercise sessions including balancing exercises, general lower limb strengthening and stretching exercises.

Results The experimental group showed a significant change in the stair performance and cognition than control group ($p<0.00$) when using HiMAT and TMT as outcome measures.

Conclusion Experimental group showed greater improvement in stair performance and cognition while measuring on HiMAT and TMT respectively when compared to control group in TBI patients.

Keywords: Traumatic brain injury, Cognition, HiMAT, TMT, Motor cognitive dual task training, Stair walking.

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Abstract 112

PREVALENCE OF DEPRESSION AMONG PATIENTS WITH CHRONIC PAINFUL PHYSICAL PROBLEMS AND ITS RELATIONSHIP WITH QUALITY OF LIFE

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Background: Some studies have reported associations between depression and pain syndrome. According to a UK epidemiological study, 16.9% of participants with chronic pain symptoms also had a psychological diagnosis.In the literature there is unclear evidence about Prevalence of Depression among Patients with Chronic Painful Physical problems & its relationship with quality of life. so present study was conducted to know the Prevalence of Depression and to find out relationship between depression & quality of life among patient with chronic painful physical problems.

Objectives: 1. To know the Prevalence of Depression among patient with chronic painful physical problems. 2. To find out relationship between depression & quality of life among patient with chronic painful physical problems.

Methodology: SPB Physiotherapy OPD recruited 120 patients with chronic painful physical problems who met inclusion criteria. Informed written consent was obtained. To estimate the prevalence of depression, all participants were requested to complete the Beck's depression inventory (BDI) and the 36-item short form health survey (SF-36) to assess quality of life.

Results: Mild to moderate depression was reported by 63 (52.5%) of the 120 participants. The results of the spearman's test showed a moderate negative association (r = -0.41, P = 0.00943) between

depression and quality of life in those with Chronic Painful Physical problems.

Conclusion: According to the findings, 52.5 % of patients with chronic pain exhibit mild to moderate depressive symptoms, and there is a moderate negative relationship between depression and quality of life among them.

Abstract 112

A EFFICACY OF PELVIC FLOOR EXERCISE PROGRAM FOR URINARY INCONTINENCE IN TRANSGENDER POPULATION WHO UNDERGONE GENDER AFFIRMING VAGINOPLASTY.

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Background: Transgender “Gender dysphoria ‘’ is a term used for a cross gender identification.vaginoplasty is the final procedure of their gender confirmation process wherethey constructed a neovagina by penile inversion. In constructing neovaginal canal a space iscreated between rectum, bladder, prostate and dissection through superficial and deep pelvicfloor structures. Surgical disruption of the structure can disrupt the support of urethralsphincter and divides the puborectalis muscle which leads urinary incontinence. A highincidence about 10/16 (62.5%) of patient developed urinary incontinence after vaginoplasty. The purpose of the study is to know the effect of pelvic floor exercise program for urinaryincontinence in transgender women who undergone gender affirming vaginoplasty.

Method: A study design is pilot study 30 transgender women from “SAHODHARANCOMMUNITY ORIENTED HEALTH DEVELOPMENT SOCIETY” who haddeveloped urinary incontinence as a complication after vaginoplasty. Revised urinaryincontinence scale (RUIS) and pad weighing test is used as a outcome tool for urinaryincontinence. Pelvic floor exercise program which includes set ofsix exercise(identification ofpelvic floor, Kegel’s

exercise, pelvic bridging, deep squat, bird dog exercise, plank, knack maneuver) for 10 -12 repetitions twice a week for six-week duration

Result: Data analysis was done by using “paired t-test” within the group between pretestand post test data analysis shows significant ($p<0.05$) which shows posttest is significant thanthe pretest. It has been concluded that pelvic floor pt shows improved pelvic floor function intransgender women after vaginoplasty.

Conclusion: This study conclude that pelvic floor physiotherapy shows moresignificant improvement in transgender women who undergo gender affirming vaginoplasty.KEYWORDS : Vaginoplasty, Urinary incontinence (UI) ,pelvic floor exercise.

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Abstract 113

RELATIONSHIP BETWEEN TORSIONAL PROFILE, MANUAL ABILITY CLASSIFICATION SYSTEM SCALE AND STRIDE PARAMETERS OF CEREBRAL PALSY PATIENTS

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Background: Cerebral palsy is the main source of youth's inability to perform functional activities. The topographic grouping of CP is monoplegia, hemiplegia, diplegia and quadriplegia. Alignment issues in cerebral palsy like femoral torsion, tibial torsion and foot are common. Additionally, gait pattern and upper limb functionals are altered.

Objective: • To find the association between the manual ability classification system scale and torsional profile in cerebral palsy children. • To find the association between the stride parameters and the torsional profile of the cerebral palsy children. • To find the association between the manual ability classification system scale and the stride parameters of the cerebral palsy children.

Methodology: The study group comprised of 30 children with CP with mean age of 13.4 yearswith hemiplegic or diplegic CP. The torsional profile and stride parameter for all the participants were taken and they were classified according to Gross Motor Function Classification System (GMFCS) and Manual ability classification system (MACS). All Statistical analysis was performed using the spearman correlation

Results: There was significant ($p \leq 0.05$) positive correlation of moderate strength found between forefoot alignment (L) with step length, thigh foot angle (L) with stride length. There was significant ($p \leq 0.05$) negative correlation of moderate strength between external

rotation of (L) and (R) with the velocity of the gait and that of forefoot alignment (L) with the toe angle. However, there was significant negative correlation ($p \leq 0.001$) between external rotation (L) with the cadence and positive moderate correlation between foot progression angle of both Right and Left with the toe angle. There was no significant correlation found between the manual ability classification system and the torsional profile as well as between the manual ability classification system and stride parameters.

Conclusion: Forefoot angle and thigh foot angle is positively correlated with stride and step length and hip malalignment is negatively correlated with cadence and positively correlated with foot progression angle and toe angle in hemiplegic and diplegic cerebral palsy. Therefore, foot deformity & hip rotations have significant co-relation with foot placement & velocity of the gait in hemiplegic and diplegic CP

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Abstract 114

EFFECTIVENESS OF LUMBAR STABILISATION EXERCISE IN LOW BACK PAIN WITH HEAVY BACK PACKS AMONG SCHOOL CHILDREN: AN EXPERIMENTAL STUDY.

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Introduction &Background:Postural development progresses through a series of stages (growth spurts, development of balance and coordination, postural stability) which occur when children are at school age. The reduction in the level of physical activity, increased body weight, overloaded school bags, asymmetry of the backpack straps, the method of putting on and taking off the backpacks and increased usage of electronic devices have negative side effects such as bad body posture habits. It is designed to strengthen muscles to support the spine and help prevent LBP. Lumbar stabilization exercise is primarily aimed in improving neuromuscular control, strength and endurance of the muscles which are considered to be central to the maintenance of dynamic spinal and trunk stability. The aim of the study was to find the Effectiveness of Lumbar Stabilization Exercise in Low Back Pain with Heavy Back Packs among School Children.

Methodology: A Total 30 subjects were selected based on the inclusion and exclusion criteria and they were divided into control group and experimental group control group received conventional exercise and experimental group received lumbar stabilization exercise along with conventional exercise. The intervention duration was 3 times per week for 6week. Pre-test and post-test were done using outcome measures VAS, ODI, MMST.

Result: In paired and unpaired t-test shows significant difference in VAS, ODI, MMST. The experimental group shows higher improvement in all three-parameter compared to control group.

Conclusion: The result of the study showed that the lumbar stabilization exercise was effective in reducing pain, improving lumbar range of motion, and functional ability when compared within both experimental and control group. But when compared between the groups, there is a significant improvement in experimental group than control group. So, I concluded that lumbar stabilization exercise along with conventional exercise is more effective than conventional exercise alone. And this study proves the effectiveness of lumbar stabilization exercise in low back pain with heavy back packs among school children.

Indian Journal of Physiotherapy & Occupational Therapy

Abstract 115

A STUDY TO COMPARE THE EFFECT OF PROPRIOCEPTIVE CIRCUIT EXERCISE VS RETRO WALKING IN OA KNEEPATIENTS

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Background: To compare the effectiveness of proprioceptive circuit exercise vs retro walking in OA Knee patients Objective Of The Study To findout theeffectiveness of proprioceptive circuit exercise in OA Knee patients,To find out the effectiveness of retro walking in OA Knee patients,To compare the effectiveness of the Proprioceptive circuit exercise and retro walking in OA Knee patient

Methods: group a: proprioceptive circuit exercise: Exercise program consisted of:repetition of walking in place wall slides, half squats, lunges. Exercises are perform in sets of 10 repetitions increases with respective weeks group b:retro walking Retro walking is backward walking with support of wall in flat surface for 10 minutes per session Duration : 3 weeks

Results Treatment A (Proprioceptive_Circuit_Exercise) and Treatment B (Retro Walking) are not significantly different in terms of reduction in WOMAC and VAS for OA Knee patients

Conclusion: The intra-group analysis showed that both the treatments are effective in terms of mean reduction in the values of measures, namely WOMAC and VAS. However, the inter-group analysis showed that Treatment A and Treatment B are equally effective in terms of mean reduction in the values of WOMAC and VAS. Treatment A and Treatment B are not significantly different in terms of reduction in WOMAC and VAS for OA Knee patients.

Abstract 116

A STUDY ON CORRELATION BETWEEN THE EARLY USE OF SMARTPHONE AND ACADEMIC PERFORMANCE IN COLLEGE GOING STUDENTS IN AND AROUND KARAD.

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Introduction: Now -a -days smart phones are an integral part of our daily life as well as in college going students.Even a casual observation of today's college going students will reveal cell phones being used, both overtly and covertly, in every possible campus setting, including the classrooms, while beneficial in numerous ways they also have disadvantages such as reduction in work efficacy, personal attention social nuisance, and psychological addiction Students spend more time on chat in class therefore marks can substantially decrease. A nationwide survey conducted in 2010 shows that mobile phones are the most necessary medium of communication for adolescents.

Need For Study: There are many college going students having early use smart phones which may affect their academic performance, they also suffer from many conditions such as lack of concentration, sleep disorders, anxiety, depression which may leads to decreases their academic performance. They spend lot of time on cell phones and have become addicted, this may affect their academic performance. So, it is necessary to do study on early use of smart phones in college going students. Hence our topic is "A STUDY ON CO-RELATION BETWEEN THE EARLY USE OF SMART PHONES AND ACADEMIC PERFORMANCE IN COLLEGE GOING STUDENTS

IN AND AROUND KARAD ".MATERIALS: Pen, Consent form, Certificate of Mark sheet (7^{th}, 8^{th}, 9^{th},10^{th},11^{th},12^{th},1^{st} to 4^{th} year), Questionnaire.

Methodology:Study type- Observational,Study design- Survey Method,Place of study – KRISHNA COLLEGE OF PHYSIOTHERAPY, KARAD,Study Duration- 6 months, SampleMethod-Convenience, Sample size.

Conclusion: The study concludes that there is a significant effect of smart phones on academic performance as well as the health and social interactions as well as increased dependency on smart phones.

Limitation:The Gender ratio was poor.The place of study was limited to Karad city only.Only Physiotherapy student were included**.**

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Abstract 117

EFFECTIVENESS OF BATES EYE EXERCISE FOR VISUAL FATIGUE AMONG SMARTPHONE USING COLLEGE STUDENTS

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Background: There is high level of prevalence of smartphone users (i.e., 37%) is between the age group of 16-24 years, so there might be more chances of developing digital eye strain among this population.

Objective: To find out the effectiveness of bates eye exercise in reducing visual fatigue, near induced transient myopia, and mental strain.

Methods: In this study 15 samples were taken who satisfied the inclusion criteria. The mean age group of samples is 21.66 years. Bates eye exercises such as palming, resting the eyes, self-massage, blinking, shifting, sun treatment, and central fixation were given to the subjects. Asthenopia questionnaire, perceived stress scale, and Snellen chart were used as outcome tool to take pre and post-test.

Results: The statistical analysis of pre & post- test values were analyzed using paired 't' test. The result of this study shows that Bates eye exercise has significant effect in reducing near induced transient myopia visual fatigue. But it has no significant effect in reducing the mental strain in this study.

Conclusion: From this study it has been concluded that there is significant effect of Bates eye exercise in reducing visual fatigue and near induced transient myopia in smartphone using college students.

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Abstract 118

DOES SMARTPHONE OVERUSE HAVE ADVERSE EFFECT ON MUSCULOSKELETAL SYSTEM OF HAND?

Sharma M., Mehta D., Devalia P., Patel R*

Background Smartphones are those devices which are used for communication and entertainment purposes such as media, internet access and gaming. Smartphone addiction is a phenomenon that pertains to the uncontrollability of smartphone use. The incidence of musculoskeletal disorders (MSD) of hands, wrist, forearm, arm, neck has been increasing all over the world due to prolonged, forceful, low amplitude, repetitive use of smartphones**.**

Objective The objectives of this study were to investigate the level of smartphone addiction and to determine the effect of the smartphone overuse on the musculoskeletal system of the hand region in students under the age group 18-24.

Method – This study was conducted in Vinayaka Institute of Physiotherapy (n = 100) where participants (age 18-24) were selected by simple random sampling. Participants were asked to complete a self-administered questionnaire for assessing smartphone addiction and hand discomfort. We assessed Smartphone addiction by Smartphone Addiction Scale (SAS) and musculoskeletal discomfort in hand by Cornell Mobile Phone Hand Discomfort Questionnaires – (Right Hand and Left Hand) were administered and data was analyzed.

Result – Data Analysis was done in SPSS Version 23. Descriptive statistics was done in (mean - 40.6) for SAS and percentage was calculated for Cornell Mobile Phone Hand Discomfort Questionnaires – (Right Hand and Left Hand) area wise. Pearson correlation was

done between values of Cornell score (area wise) and SAS scores of all subjects with ($p > 0.05$).

Conclusion – It was observed that there was positive correlation between SAS and Cornell Mobile Phone Hand Questionnaires in few areas that is Area C and Area E in Right Side and Area A, Area B & Area E in Left Side. The study concluded that overuse of the smartphone plays an important role in adverse effect of musculoskeletal system of the hand along with other factors

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Abstract 119

EFFECT OF AGILITY TRAINING EXERCISE ON MOTOR PROFICIENCY AND ANTHROPOMETRY IN 6 TO 10-YEAR-OLD OVEERWEIGHT CHILDREN – A RANDOMIZED CONTROLLED TRIAL.

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Background And Objectives: Overweight & Obesity is the current global & threatening nutritional non-communicable health disorder faced by children & adolescents leading to morbidity & mortality. Childhood obesity has also been related to decreased motor proficiency, which is a crucial competence throughout the developmental stage. Hence, this study was undertaken to determine the effects of agility training on motor proficiency& anthropometry in 6 to 10 years old overweight children.

Methodology:16 subjects were selected, divided into 2 groups. Group A (Experimental n= 8) received star agility run. Group B (Control n=8) received jogging &skipping. Both groups received warm up & cooldown exercises. Duration was 3days a week for 40 minutes for 4 weeks. Motor proficiency & anthropometry were measured at the beginning & end of intervention using Bruininks-Oseretsky test for motor proficiency, Skinfold caliper, & BMI.

Results: statistically significant changes were observed in most of the outcome measures in paired t test of Group A compared to Group B. Between groups only BOT shows a significant improvement. In case of skinfold measurements, statistically less significant occur from pre to post test. In case of BMI, no change in between and within group.

Conclusion: A planned & structured 4 weeks of agility training program is effective in improving motor proficiency in 6 to 10-year-old overweight children.

Abstract 120

RELATIONSHIP BETWEEN PHYSICAL ACTIVITY, ANTHROPOMETRIC MEASUREMENT, QUALITY OF LIFE AND MENOPAUSAL SYMPTOMS AMONGSOUTH-INDIAN WOMEN

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Background: In a women's life, menopause is the period where the reproductive capacity ceases. During this era, a wide range of symptoms occur as a consequence of estrogen decrease. The age and symptomatology of menopause vary among women across the world. peri-menopausal symptoms affect Quality of Life (QOL) in women. Physical activity (PA) influences menopausal symptoms through varied hormonal balance. Evidence suggests, physically active women have a better standard of living and fewer menopausal symptoms.

Objectives: To analyze the relationship between PA, Anthropometric Measurement, QOL, and Menopausal Symptoms among the South-Indian population.

Methodology: A cross-sectional study was conducted online through WhatsApp, Facebook, and via emails among menopausal women (April 2021 –June 2021). Out of 168 responses 153 were taken into the study based on inclusion and exclusion criteria. Anthropometric measurement Body mass index (BMI), Menopause rating scale (MRS), International Physical Activity Questionnaire (IPAQ), and The Menopause-Specific Quality of Life Questionnaire (MENQOL) self-reporting questionnaires were used.

Results: There is a statistically significant difference noted between PA and MRS. There is an association between PA and QOL of

menopausal women under physical and sexual domains of MENQOL (p-value≤0.05).

Conclusion: There is an association between PA and QOL. Hence, PA promotion is recommended among menopausal women.

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Abstract 121

TREADMILL AMBULATION AS A DIAGNOSTIC TOOL FOR PSYCHOGENIC GAIT DISORDERS – A SINGLE CASE STUDY.

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Background: Psychogenic gait disorders are a challenge for the medical professionals both in andmanagement because the signs and symptoms demonstrated by the patients are medicallyunexplainable.

Objectives: The objective of this case report is to introduce the scope of treadmill ambulation as a diagnosis in cases of psychogenic gait disorders

Methods: A patient was referred to physiotherapy OPD for gait training for her bizarre gait pattern. Quantitative and qualitative analysis of gait was done using GaitRite system as well as on treadmill.

Results: We observed that when the patient was made to walk on the treadmill which was a novel task for the individual, there was a major change in the quality of gait to a normal alternate leg pattern.

Conclusions: Treadmill ambulation for patients with gait deviations, for whom the disorders are medically unexplainable, will help in early diagnosis of *psychogenic* gait disorders.

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Abstract 122

EFFECTIVENESS OF TRANSCUTANEOUS TIBIAL NERVE STIMULATIONON URINARYINCONTINENCE AMONG INDIVIDUAL WITH TYPE II DIABETES MELLITUS.

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Background Of the Study: Urinary incontinence is the most common among people with type II Diabetes mellitus patients. In Diabetes mellitus it can be caused by neurogenic bladder, which is caused by nerve damage (neuropathy) due to high blood sugar level. This leads to bladder weakness, and affects quality of life. Transcutaneous Tibial Nerve Stimulation is more effective in treating overactive bladder.

Objective: This study was an attempt to compare the effect of transcutaneous tibial nerve stimulation on urinary incontinence among individual with type II Diabetes mellitus.

Methodology: 30 persons with type II diabetes mellitus with urinary incontinence were selected on inclusion and exclusion criteria. They were randomly allocated into two groups (Group A) and (Group B). Group A received transcutaneous tibial nerve stimulation along with conventional exercise, Group B received conventional exercise alone. Intervention lasted for 8 weeks. The subjects will be assessed using International Consultation on Incontinence Questionnaire and Michigan Incontinence Symptoms Index Questionnaire after 8 weeks.

Result Conclusion: Group received tibial nerve stimulation along with conventional therapy has showed significant improvement compared to other group which received conventional therapy alone.

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Abstract 123

DYSAUTONOMIA IN LONG COVID – A CASE REPORT

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Background: The SARS-CoV-2 (Covid-19) pandemic infected around 330 million people globally. Dysautonomia with persistent postural orthostatic tachycardia, fatigue was reported in Long Covid patients.

Aim: To report on dysautonomia in Long Covid and its physiotherapy implication.

Case Description:A 53 -year-old woman developed COVID-19 symptoms in May 2020 with fever, loss of smell and taste, developed breathlessness. RTPCR was positive for SARS –Cov-19, initially treated in Intensive Care Unit two weeks on mechanical ventilator, tracheostomized and was on bronchial hygiene therapy and positioning. On shifted out of Intensive care Unit, in bed mobilization (high sitting) started (on 17 the day post admission) twice daily. On Progression to out of bed mobilization, on supported standing heart rate increased to two folds from baseline with concomitant increase in blood pressure, one episode of syncope reported during out of bed mobilization and then achieved recovery within safe limits. Persistent postural orthostatic tachycardia delayed out of bed mobilization and patient got discharged after 39 days of hospitalization. At the time of discharge only standing with support was achieved. Post discharge patient received supervised home-based physiotherapy for few weeks and the 6-minute walk test distance was 80 meters.

Results And Conclusion: Postural orthostatic tachycardia, disorder of Autonomic nervous system has been noted in Long Covid patients. Mobilizing these patients should be done with caution, observing each stage, clinical status and adverse physiological effects needs to be monitored during mobilization. Gross reduction in Functional capacity was observed in this subject thus augmenting the literature support

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Abstract 124

INTERVENTIONS TO IMPROVE AROUSAL IN TRAUMATIC BRAIN INJURY PATIENTS – A LITERATURE REVIEW

Hemayuthika Sri Ramachandra Institute Of Higher Education And Research

Background: Coma is as an unarousable, unresponsive state without eye opening, verbalization, or ability to follow commands which is caused by diffuse bilateral hemisphere damage, failure of the ascending reticular activating system, or both in Traumatic brain injury patients (TBI). Interventions to promote emergence from coma generally focus on stimulation of the neural pathways responsible for arousal, which are thought to exist primarily in the reticular activating system and the midbrain. Various strategies have found to improve arousal which could stimulate different neural pathways and improve arousal levels.

Objectives: Effectiveness analysis of various interventions - multimodal stimulation, verticalization, peripheral nerve stimulation, whole body vibration and vagus nerve stimulation on improving arousal in TBI patients.

Data Synthesis and Methods: The electronic database for this review was conducted from 2001 to 2021 in PubMed, Cochrane, PEDRO, CINAHL and Google scholar. Key words include Traumatic brain injury, Multimodal stimulation, peripheral nerve stimulation, coma, verticalization and upright posture. Articles identified through data searching including cross referencing were 43. 09 articles did not have accessibility to full text. 15 studies did not meet the inclusion criteria. Eligible articles after removing duplicates were 19 which were primarily Interventional studies meeting the criteria.**Results:** This review considered studies done in acute and sub-acute phase where 7 studies were identified to have significant improvement with multimodal stimulation and 5 studies on peripheral nerve stimulation

showed predominantly stimulating median nerve and activating the reticular activating system. Verticalization (5 studies) showed significant improvement in reducing orthostatic intolerance than arousal but noninvasive vagus stimulation (2 studies) did not show significant improvement compared to other interventions.

Conclusion: Arousal techniques that are existing and actively followed have significant relevance and benefits to awaken TBI patients. These interventions can be appropriately included in standard care of rehabilitation as functional and motor recovery depends on the higher mental functions.

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Abstract 125

STRATEGIES TO IMPROVE BALANCE AND REDUCE FALL RISK IN DIABETIC NEUROPATHY PATIENTS

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Background: Fall risk are common in 20% of people with diabetic neuropathy and may result in trauma, pain, impaired function/ADL. Sensory, motor, balance and flexibility issues are most common modifiable risk factors which may lead to fear of fall. Various strategies like sensory based exercise training program with multisensorial stimulation, Otago Exercise Program and task-based training protocols was effective in reducing fall risk by 35% and was conditions like Parkinson's in improving balance but not yet explored much in diabetic population

Objective: To find the efficacy of these training strategies in reducing fall risk by improving balance and physical performance in diabetic neuropathic patient

Method: This interventional study including 15 Diabetic neuropathy patients in control and 15 in experimental group respectively. Subjects above 40 years of age of both genders were included. Subjects in experimental group were administered with functional reach, vibration, task-based biofeedback training, multisensory stimulation, backward walking, reactive and proactive balance exercises and proprioception training with Otago Exercise Program (strengthening & balance retraining). Conventional balance training was administered for control group. Subjects in both groups were followed for a period of 4 weeks. The following outcome measures were used – Falls Efficacy Scale International, HRQOL, Berg Balance Scale

Results: Mann-Whitney test used for analysis.

Conclusion: above mentioned training strategies showed better improvement in experimental group.

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Abstract 126

A SYSTEMIC REVIEW ON VARIOUS PHYSIOTHERAPEUTIC INTERVENTION IN PRIMARY DYSMENORRHEA

Suriya. NFaculty Of Physiotherapy, Dr.M.G.R Educational Research Institute, Velapanchavadi, Chennai -77.

Objective: This systemic review aimed at analyzing the literature systematically and to discuss various Physiotherapeutic intervention in Primary Dysmenorrhea to reduce pain and to improve the quality of life.

Background: Primary Dysmenorrhea has been reported as the leading cause of recurrent absenteeism from school, college and work in adolescent girls and young women. The prevalence of Dysmenorrhea worldwide ranges 15.8%-89.5%, with higher prevalence rates reported is the adolescent population. In India, prevalence was found to be 78.69%.

Data Source: BIOMED CENTRAL, MEDLINE, EMBASE, ACRI, Europa medicophysica, BMI, PEDRO, Cochrane central register of controlled trials (CENTRAL), American physical therapy association, Google Scholar, Cochrane library. The database were collected from these sources.

Study Selection: Randomized controlled trials (RCT), Experimental study, pre-test and post-test evaluating physiotherapy intervention in primary dysmenorrhea.

Result: In this systematic review, the literature search initially resulted in 390 articles among which 40 studies fulfilled the criteria and were finally included in the review. Treatment strategies include TENS, acupuncture, stretching, aerobics, heat therapy, connective tissue mobilization, tapping and all showed a significant outcome. But heat therapy showed a better significant on comparing with studies included in this review.

Abstract 127

HAND FUNCTIONS IN DIABETIC POPULATION

Aneena AnexMedical Trust Institute of Medical Sciences

Background: The prevalence of Diabetes Mellitus (DM) is increasing across the world, being more prevalent in low and middle socio – economic countries like India. The complications are also in peak due to poor glycaemic control, lack of awareness, poor diabetic screening and lack of health care facilities in rural areas. Most of the literature worked on diabetic foot complications and its treatment strategies. Literature on diabetic hand complications and evaluation on diabetic hand function is scarce.

Method: Thorough literature search was conducted on Pubmed, Google Scholar, Cochrane reviews. Full text articles and abstracts were reviewed. Search was restricted to English language. Studies conducted after 2000 were included.

Results: Eighteen studies were found related to the search and nine were included for this review based on the relevance to the current review. Cross sectional and observational case control studies were reviewed. Out of nine, six studies evaluated hand grip and pinch strength using hand held dynamometer and pinch gauge. All six studies reported significant decrease in hand strength among diabetic population.

Conclusion: This narrative review revealed decline in hand muscle strength, hand dexterity, mobility and function among diabetic population. Like diabetic foot evaluation, hand evaluation needs to be incorporated in routine assessment. Future studies are required to measure the effect of various treatments for better hand function in people with Diabetes Mellitus.

Abstract 128

EFFECTIVENESS OF INSTRUMENT ASSISTED SOFT TISSUE MOBILIZATION AND CONVENTIONAL THERAPY FOR ILIOTIBIAL BAND SYNDROME AMONG CYCLIST

Bharath KumarDr. M.G.R. Educational And Research Institute

Objective: To find the effectiveness of IASTM and conventional therapy with Gluteus Medius strengthening for IT band syndrome among cyclist.

Background: IT band syndrome is an overuse injury caused by repetitive friction of the iliotibial band across the lateral femoral epicondyle. Once it was among runners but now it is common among cyclist. There is a sharp and burning lateral knee pain due to repetitive friction.

Methodology: It is an experimental study with pre and post-test type. A total of 24 students are randomly assigned into two groups in Faculty of Physiotherapy, Dr. MGR educational and research institute. Lower extremity functional scale (LEFS), numerical pain rating scale (NPRS) is used to measure pain and functional ability before and after the intervention. Both men and women with age group of 18-25, cyclist with minimum 20 km cycling in a week, with clinical diagnosis of IT band syndrome are included in this study. History of previous knee pain, knee surgery, knee trauma and other knee abnormalities like patellar tendinitis, meniscal injury, osteoarthritis etc., are excluded in the study.

Procedure: 24 students are divided into 2 groups with random sampling method. Group A and Group B (12 patients in each group). IASTM is given to group A and Phonophoresis (hydrocortisone) is given for group B for 8 minutes with 1.5 w/cm^2, 4 times a week for 2 weeks. Gluteus Medius strengthening like clamshell, single limb abduction, single leg squat is given for both groups. It is a 2-week

intervention for 4 sessions per week. Strengthening exercises is given for 12 reps 3 sets with 1 minute interval between each set.

ResultBoth groups showed a significant improvement in pain and functional ability. But IASTM with Gluteus Medius strengthening showed a significant improvement compared to Phonophoresis and Gluteus Medius strengthening with a p value of $P \leq 0.001$.

Conclusion: This study concludes that IASTM with Gluteus Medius strengthening shows better improvement in pain and functional ability.

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Abstract 129

PHYSIOTHERAPY INTERVENTIONS FOR FRIEDREICH ATAXIA- A SYSTEMIC REVIEW

S. Dhanusia Faculty Of Physiotherapy, Dr. M.G.R Educational And Research Institute, Velapanchavadi, Chennai -77.

Objective: This systemic review aimed at analyzing the range, scope and quality of study which assess the effectiveness of Physiotherapy interventions for Friedreich ataxia.

Background: Friedreich ataxia (FRDA) is an autosomal recessive degenerative disease that primarily affects the nervous system and the heart. FRDA is associated with muscle weakness, spasticity particularly in lower limb, dysarthria, areflexia in lower limbs, loss of proprioception and 2/3rd have cardiomyopathy and 30% have diabetes. FRDA is the most common hereditary ataxia with estimated prevalence of 1:50,000 – 1:29,000. DATA SOURCE: MEDLINE, EMBASE, ACRI, BIOMED CENTRAL, BMI, PEDRO, CINAHI, Cochrane central register of control trials (CENTRAL), American physical therapy association, Google scholar, Cochrane library. Databases are collected from these sources.

Study Selection: Experimental study, case report, retrospective and prospective pre-test and post-test evaluating Physiotherapy interventions in Friedreich ataxia.

Result: In this systematic review, the literature search initially resulted in 263 articles among which 9 studies fulfilled the criteria and were finally included in the review. Almost all the studies showed that there was a statistically significant difference in the pre-test and post-test values, most of rehabilitation program includes stretching exercise, strengthening program, balance and coordination training, ambulatory training, fall prevention training followed by home exercise.

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Abstract 130

EFFECTIVENESS OF KINESIO TAPING IN PLANTAR FASCIITIS

Adeela Siddeequa. S Dr. M.G.R. Educational And Research Institute (Decl. U/S. 3 Of Ugc Act 1956) (Deemed To Be University)Accredited With A Grade By NAACE.V.R. Periyar High Road, MaduravoyalChennai-600095Faculty Of Physiotherapy

Aim: The purpose of this study was to show that kinesio taping proves as short-term relief for Plantar fasciitis.

Need For The Study: Plantar fasciitis is one of the most common causes of heel pain which affects both males and females. It is defined as the inflammation of the plantar fascia which forms the protective covering layer of the sole of the foot. It can affect both sedentary and athletic population and also in subjects those who stand for a prolonged period. This study was designed to prove that the kinesio taping as short-term relief in plantar fasciitis.

Methodology: This Study was a proved design. The study was conducted on 30 subjects both male and female with chronic plantar fasciitis (PF). The study setting was at the outpatient physiotherapy department, Dr. M.G.R. Educational and Research Institute, and the duration of the study was 4 weeks. Both male and female subjects between 18-40 years of age with plantar fasciitis (PF), those with pain at the insertion of plantar fascia on calcaneum, those with pain during the first step in the morning and those who are suffering from plantar fasciitis for more than 3 months were included for this study. Subjects those who have been previously operated in the same ankle or foot, pain anywhere else in the foot on palpation other than the insertion of the plantar fasciitis on the calcaneus, inflammatory disease, diabetes, treated with steroid, use of crutches, walker and pregnant women were excluded in the study.

Procedure: 30 subjects with PF were taken and for the soon recovery they were applied kinesio taping. The kinesio taping was applied by fan method and the tape was reapplied when required. The outcome measures used in this study were foot and ankle ability measure (FAAM)

Result: The result revealed that kinesio taping proves as a short- term relief in plantar fasciitis.

Conclusion: The present study concluded that kinesio taping is a short-term pain relief in plantar fasciitis

Key Words: Plantar fasciitis, kinesiotaping,Foot and ankle ability measure.

Abstract 131

A STUDY TO COMPARE THE EFFECTIVENESS OF MULTISENSORY TRAINING VERSUS BALANCE EXERCISE ON FUNCTIONAL MOBILITY AND BALANCE FOR ELDERLY.

Punitha .K, Jaya College Of Physiotherapy.

Background: Balanceisacomplexfunctioninvolvingnumerousneuro muscularprocesses.Balance emerges from the interaction of multiple systems that are organized to meet functionaltaskgoalsandthatareconstrainedbyenvironmentalcontext, butisoftencompromisedwith advancing age. Balanceimpairments are associated with an increased risk of falls and poorer mobility measures in the elderly population.

Objectives: To compare the effectiveness of multisensory training versusbalance exercise on functional mobility and balance for elderly.

Method:A total of 30 subjects fulfilled with the selection criteria are included in the study.They are assigned as two groups.GROUP-A multisensory trainingGROUP-B balance exercise.

Results: There was no significance difference between groups prior to initiating the Exercise program. A significance difference between the groups was present by the persistence of exercise

.**Conclusion:**Group A is significantly effective than Group B in terms of improvement in the values of time up and go and mean reduction in the values of berg balance scale on functional mobility and balance for elderly.

Abstract 132

A STUDY TO COMPARE THE EFFECTIVENESS OF TENS WITH NEURAL MOBILIZATION VERSUS IFT WITH NEURAL MOBILIZATION IN SUBJECTS WITH CERVICAL RADICULOPATHY.

Dhanalakshmi.RJaya college of Physiotherapy,Thiruninravur

Background: A study to compare the effectiveness of tens with neural mobilization versus ift with neural mobilization in subjects with cervical radiculopathy.

Objective Of The Study :To findout theeffectiveness of TENS in cervical radiculopathy patients,To find out the effectiveness of IFT in cervical radiculopathy patients, To compare the effectiveness of the neural mobilization in cervical radiculopathy patient. Methods: GROUP A: TENS:Type- pulse width modulation, Frequency-40-70Hz, Intensity- as per patient tolerance, Electrodes Placement- Four TENS pad electrodes will be placed on affected area. GROUP B: IFT:2 electrodes over the cervical region and another 2 electrodes placed on the affected arm,Frequency – 2 kHz,Base -20 Hz,Spectrum – 40 Hz.

RESULTS. Treatment A (TENS with Neural Mobilization) is considered to be effective than Treatment B (IFT with Neural Mobilization) in terms of improvement in NPRS, NDI and Range of Motion in subjects with Cervical Radiculopathy.

CONCLUSION: The intra-group analysis showed that both the treatments are effective in terms of all the scores such as NPRS, NDI and ROM.. However, the inter-group analysis showed Treatment A(Group A- TENS with Neural Mobilization) is more effective than Treatment B (Group B- IFT with Neural mobilization) in terms of NPRS , NDI and ROM. Treatment A (TENS with Neural Mobilization) is considered to be effective than Treatment B (IFT

with Neural Mobilization) in terms of improvement in NPRS, NDI and Range of Motion in subjects with Cervical Radiculopathy.

Abstract 133

A STUDY TO COMPARE THE EFFECTIVENESS BETWEEN HIGH INTENSITY INTERVAL TRAINING VERSUS CONTINOUS ENDURANCE TRAINING TO IMPROVE THE CARDIO RESPIRATORY FITNESS AFTER MYOCARDIAL INFARCTION.

Selvi.J, Jaya College Of Physiotherapy

Objectives Of Study: To know the effectiveness of high intensity interval training to improve cardio respiratory fitness after myocardial infarction. To know the effectiveness of continuous endurance training to improve cardio respiratory fitness after myocardial infarction. To compare the effectiveness of high intensity interval training and continuous endurance training to improve cardio respiratory fitness after myocardial infarction.

Methodology: Group A -high intensity interval training [duration- 40 min] Group B – continuous endurance training [duration- 40 min].

Results: Group A (HIIT) is considered to be effective than Group B (Continuous endurance training) to improve the cardio respiratory fitness after myocardial infarction in terms of using the value of Borg's scale six-minute walk test.

Conclusion: The intra group analysis is showed that both the treatments are effective. However, the inter group analysis showed that Group A (HIIT) is more effective than Group B (Continuous endurance training).

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Abstract 134

A STUDY TO COMPARE THE EFFECTIVENESS OF CORE STRENGTHENING EXERCISES VERSUS LUMBAR STABILIZATION EXERCISE WITH CRYOTHERAPY ON LUMBAR FUNCTION FOR NON-SPECIFIC LOW BACK PAIN.

M. Yuvarani, Jaya College Of Physiotherapy.

Background: Low back pain is one of the most common diseases and about 70–80% of the population experience it once or more in modern society, and its incidence, and social expenditures related to it are increasing.There are various causes of back pain, and among them, herniation of intervertebral discs, and muscle weakness.

Objectives: To compare the effectiveness of core strengthening exercises versus lumbar stabilization exercise with cryotherapy on improving lumbar function for non-specific low back pain subjects.

Method: A total of 30 subjects fulfilled with the selection criteria are included in the study.They are assigned as two groups.GROUP-A consists of subjects who are trained Core strengthening exerciseGROUP-B consists of subjects who are trained lumbar stabilization exercise

Results: There was no significance difference between groups prior to initiating the Exercise program. A significance difference between the groups was present by the persistence of exercise.

Conclusion: Group A is significantly effective than Group B in terms of improvement in the values of ODI and mean reduction in the values of SCHOBERS TEST.

Abstract 135

A STUDY TO COMPARE THE EFFECTIVENESS OF THERABAND EXERCISES VERSUS AEROBIC EXERCISES ON BALANCE AND MOBILITY AMONG THE COMMUNITY DWELLING ELDERLY.

Balaji.G, Jaya College Of Physiotherapy

Background: A study to compare the effectiveness of theraband exercises versus aerobic exercises on balance and mobility among the community dwelling elderly**.**

Objective Of The Study: To study to the effectiveness of Theraband exercise on balance and mobility among the community dwelling elderly.To study to the effectiveness of Aerobic exercise on balance and mobility among the community dwelling elderly.To study to the effectiveness of Theraband exercise versus Aerobic exercise on balance and mobility among the community dwelling elderly.

Methods:GROUP A:THERABAND EXERCISES:The subjects in this group will receive theraband exercisesthe exercises were performed two times for one set, three days per week for five weeks.Time duration is 15 to 20 minutes**.** Theraband exercise where as follows; Knee flexion to extension while sitting, standing from sitting, Knee extension to flexion while sitting, Hip extension to flexion while standing, Hip flexion to extension while standing**.** GROUP B:AEROBIC EXERCISES:10 to 15 minutes three sessions per week for five weeks under the supervision of trained therapists.In the first week, the duration of each session was decided to be 10 minutes and then increased by 5 minutes per week so that the duration of the last session reached 30 minutes.After 10 minutes of practice in each session the participants were allowed 5 minutes rest.1st week -

10 minutes,2nd week - 15 miutes,3rd week - 20 minutes,4th week - 25 minutes,5th week - 30 minutes.

Results: Both the treatments are individually effective in terms of improvement in TUG and BBS. But the results of inter-group analysis showed that Treatment A is considered to be **effective** than Treatment B in terms of improvement in TUG and BBS in community dwelling elderly.

Conclusion: Group A (**Theraband**) is considered to be **effective** than Group B (**aerobic exercises**) in terms of improvement in TUG and BBS in Community Dwelling Elderly.

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Abstract 136

"A STUDY TO COMPARE THE EFFECTIVENESS OF FUNCTIONAL STRENGTH TRAINING AND NEURODYNAMIC EXERCISES ON BALANCE AND GAIT OF PATIENTS WITH DIABETIC PERIPHERAL NEUROPATHY"

Anna Jasper DJJaya College Of Physiotherapy

Background: the background of the study is to frame a protocol of physiotherapeutic intervention that could allow the improvement of sensory and motor function in a cheap and practical manner that would be useful within our outpatient clinical practice by using Neurodynamic Exercises and Functional Strength Training in finding the efficiency of both the techniques in improvement of sensory and motor function in Diabetic Peripheral Neuropathy patients.

Objectives: The objective of the study is to compare out the efficiency of the Functional Strength Training verses Neurodynamic Exercises on Balance and Gait in patients with Diabetic Peripheral Neuropathy

Method: This study is based on Comparative study design.Total duration of the study is 4 weeks 30 subjects with Diabetic Peripheral Neuropathy is selected.Thirty subjects aged 40-80 years with history of Diabetes for more than 7 years presenting with Diabetic Peripheral Neuropathy were selected and assigned into two experimental groups with 15 subjects in each group, group A received Neurodynamicexercises and group B received Functional Strength Training program for a period of 4 weeks.Bergs Balance Scale and Functional Gait Assessment were used to evaluate the Balance and Gait before and after the treatment.

Results And Conclusion: It can be concluded that Neurodynamic Exercise shows significant improvement, was easily convenient and showed better than Functional Strength Training on Balance and Gait in patients with Diabetic Peripheral Neuropathy.

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Abstract 137

TO COMPARE STATIC AND DYNAMIC BALANCE AMONG PATIENTS WITH DIABETIC NEUROPATHY VERSUS AGE MATCHED NORMAL SUBJECTS"

R.Naveenkumar, Jaya College Of Physiotherapy

Background: A study to compare static and dynamic balance among patients with diabetic neuropathy versus age matched normal subjects.

Objective Of the Study: The study is to evaluate static and dynamic balance in patients with diabetic neuropathy. The study is to evaluate static and dynamic balance in age matched normal subjects. To compare the static and dynamic balance in patients with diabetic neuropathy versus age matched normal subjects.

Methods: Group A is diabetic neuropathy patients they were clinically examined with diabetic neuropathy examination score, and the static and dynamic balance assessed with Berg balance scale and timed up and go test. Group B The subjects in this group are age matched normal individuals.

Results: Primary measures of the diabetic peripheral neuropathy is Diabetic neuropathy examination score

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Abstract 138

A STUDY TO COMPARE THE EFFECTIVENESS OF ACTIVE RELEASE TECHNIQUE VERSUS MUSCLE ENERGY TECHNIQUE ALONG WITH CRYOTHERAPY ON CERVICAL PAIN AND ROM FOR NECK PAIN.

Pavithra.P, Jaya College of Physiotherapy.

Need of the study: People have a 70% likelihood of developing neck pain during their lives; thus, neck pain is an important issue affecting economic productivity in modern society[1]. Neck pain is a work-related musculoskeletal disorder that can occur when a person works for a long time or at a high intensity. An increasing number of patients also visit hospitals complaining of pain occurring not only in the neck but also in the upper extremities and head as a result of sustained excessive tension [2] . Although the issue of neck pain is becoming increasingly common and important, research into optimal treatments lacking [3]. A common cause of neck pain is mechanical dysfunction, which causes abnormal joint movement, as abnormal cervical joint mobility inside the joint capsule can limit neck movement [4,5].

Methodology: Two group of subjects are selected – Group A and Group B Age group – 30 to 45The subjects are taken pre-test of NPRS scale for neck pain, goniometry for cervical ROM and NDI for functional disability

Study duration: Total – 2 weeks. Group A – 3 days per week for 2 weeks. Group B – 3 days per week for 2 weeks

Procedure: Group A – Active release technique with cryotherapy. (5 to 10 min cryotherapy; 10 to 15 min ART)Group B – Muscle energy technique with cryotherapy. (5 to 10 min cryotherapy; 10 to 15 min MET)

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Abstract 139

EFFECTIVENESS OF DIFFERENT INTERVENTION ON SPASTICITY IN STROKE PATIENTS: A NARRATIVE REVIEW.

Rashmi M. Ghoghari OPC physiotherapy college, VNSGU, Surat

Background: The World Health Organization (WHO) defines stroke as 'The rapidly developing clinical symptoms and/or signs of focal (or global) disturbance of cerebral function, with symptoms lasting more than 24 hours or leading to death with no apparent cause other than that of vascular origin". Cerebrovascular disease-related mortality rates have been increasing, and 1 out of every 4 cerebrovascular disease patients dies within a month after the onset of disease.84-262/100,000 in rural and 334-424/ 100,000 in urban areas.

Objectives: Aim of the narrative study to evaluate the effectiveness of different intervention on spasticity in stroke patients.

Methodology: literature was searched MEDLINE, CINAHL, EMBASE, google scholar and Cochrane Library from 20011 to 2021. RESULT: Result of the studies evaluating the different approaches or intervention improve in spasticity in stroke patients. Different intervention like TENS, extracorporeal show wave therapy (ESWT), Neuromuscular electrical stimulation (NMES), Static stretching positioning, coupling repetitive transcranial magnetic stimulation & physical therapy, Deep dry needling (DDN), NMES, Electrical stimulation etc. out of this intervention, all above interventions had significant effect on spasticity and some interventions are same effect like other physical therapy treatment in stroke patients.

Conclusion: Many literatures suggest different intervention reducing spasticity in stroke patient that led to improvement in motor activity in stroke patients and improvement in quality of life in stroke patients.

Abstract 140

A STUDY TO COMPARE THE EFFECTIVENESS OF ECCENTRIC EXERCISE WITH ULTRASOUND VERSUS THERABAND FLEX BAR WITH ULTRASOUND ON PAIN AND GRIP STRENGTH FOR MEDIAL EPICONDYLITIS.

Thenmozhi .M Jaya College of Physiotherapy

Background: Medial epicondylitis commonly referred to as "Golfer's elbow" is characterized by pathological changes in musculotendinous origin at the medial epicondyle characterized by pain and palpation [(1)].It usually occur over the pronator teres and the flexor carpi radialis, which is worsened by resisted wrist flexion and forearm pronation[(1)]

Objectives:A study the compare the effectiveness of ECCENTRIC EXERCISE VERSUS THERABAND FLEX BAR WITH ULTRASOUND on pain and grip strength for medial epicondylitis.

Method:A total of 20 subjects fulfilled with the selection criteria are included in the study. They are assigned as two groups. GROUP-A eccentric exercise GROUP-B TheraBand flex bar.

Results: There was no significance difference between groups prior to initiating the Exercise program. A significance difference between the groups was present by the persistence of exercise.

Conclusion Group A is significantly effective than Group B in terms of improvement in the values of VASscale and mean reduction in the values of goniometer and hand grip.

Abstract 141

TO COMPARE THE EFFECTIVENESS OF ELASTIC RESISTANCE BAND EXERCISE VERSUS PNF TECHNIQUES AMONG THE YOUNG MALE PATIENTS WITH CHRONIC NON-SPECIFIC LOW BACKPAIN.

R. Praveen Jaya College of Physiotherapy

Background: Low back pain (LBP) is a problem worldwide with a lifetime prevalence reported to be as high as 84%. LBP is defined as pain experienced between the twelfth rib and the inferior gluteal fold, with or without associated leg pain.LBP is classified as Specific Low Back Pain and Non-specific Low Back Pain

.**Objectives:**To compare the effectiveness of Elastic resistance band exercise versus PNF techniques among the young male patients with chronic nonspecific low backpain.

Method: Twenty consecutive subjects were taken for the study all subjects were received 6 therapy sessions consisting of elastic band exercise and PNF techniques. Treatment differed between the groups lumbar flexion and extension compared within and analyzed using VAS scale and Schober's test.

Results: There was no significance difference between groups prior to initiating the treatment. A significance difference between the groups (p 0.05) was present by the third treatment

ConclusionBy the results we can conclude that patient receiving theraband exercise will show a increase when compared to patient receiving PNF techniques. Hence, we can conclude theraband is more

effective for reduction of VAS and improving lumbar flexion and extension.

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Abstract 142

TO COMPARE THE EFFECT OF ZIG ZAG AND PLYOMETRIC TRAINING PROGRAMME ON AGILITY IN RECREATIONAL MALE FOOTBALL PLAYERS

R.AkashJaya College Of Physiotherapy.

Background: Soccer is probably the world's most popular sport in the world with millions of licenses [1]. The basic techniques that a soccer player needs to have are kicking, stopping or stopping, dribbling, heading or heading, and tackling the ball. Agility is needed to be able to avoid obstacles from opponents in order to scoring goals and a significant determinant of success in soccer.

Objectives: To compare the effect of zig zag and plyometric exercise on agility in recreational male football players.

Method: A total of 30 subjects fulfilled with the selection criteria are included in the study.They are assigned as two groups. GROUP-A consists of subjects who are trained Zig-Zag training program GROUP-B consists of subjects who are trained Plyometric training program

Results: There was no significance difference between groups prior to initiating the Exercise program. A significance difference between the groups was present by the persistence of exercise.

ConclusionGroup-B is significantly effective than Group-A in terms of improvement in the values of VERTICAL JUMP TEST and mean reduction in the values of T-TEST& ILLIONIS TEST

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Abstract 143

TO COMPARE THE EFFECTIVENESS OF PILATES EXERCISE VERSUS FLOOR EXERCISE ON CORE MUSCLE STRENGTHENING IN COLLEGEIATE CRICKET PLAYERS.

V. Eshwara Moorthy Jaya College of Physiotherapy

Background: Core is used to stabilize the thorax and the pelvic during dynamic movement. Core stability is defined as the ability to control the position and movement of the trunk over pelvis to allow correct production transfer. Core Stability Exercise (CSE) with the Abdominal Drawing in Maneuver (ADIM) technique has been found to mainly activate the deep abdominal muscle with minimal (or) marginal activity of the superficial muscle

Objectives: To compare the effectiveness of pilates exercises versus floor exercises in terms of core muscle strengthening among collegiate cricket players.

Method: Thirty consecutive subjects were taken for the study all subjects were received 6 therapy sessions consisting pilates exercise and core muscle strengthening exercise.

Results: There was no significance difference between groups prior to initiating the treatment. A significance difference between the groups (p 0.05) was present by the third treatment.

ConclusionHence, we conclude pilates exercise is effective than treatment b floor exercise in terms of a measure ‘BET for core muscle strengthening in collegiate cricket players.

Abstract 144

SYSTEMIC POST COVID 19 COMPLICATION JAYA COLLEGE OF PHYSIOTHERAPY

R.Sarath (BPT IIND year) TN Dr MGR Medical University

Background:COVID 19 has been threatening the world since 2019 December.More intimidating and life-threatening complications are found as a result of COVID 19 even after recovery. Few of the systemic post COVID 19 complications are mentioned below: systems covered: nervous system reproductive system, cardiovascular system, digestive system, renal system, integumentary system, endocrine system, musculoskeletal system, respiratory system nervous system: acute necrotizing encephalopathy, transverse myelitis, guillian barre syndrome ,and para infectious manifestations reproductive system :infertility cardiovasucular system : myocarditis, acute myocardial injury haematological conditions digestive system :chronic liver disease, tract complications renal system : acute renal failuredecrease in kidney function. integumentary system hives(rashes) and hair loss, telogen effluvium endocrine system pituitary gland: Transient hypocortisolism/Secondary hypothyroidism. Electrolyte imbalance: Hypernatremia/Hypokalemia Adrenal gland: Hypoaldrenalism
Thyroid gland:HypothyroidismPancreas: Hypo/hyperglycemia Gonads: Hypogonadism MUSCULOSKELETAL SYSTEM: Myalgia, Myositis/Rhabdomyolysis, Diaphragm muscle dysfunction RESPIRATORY SYSTEM: Pneumonia ARDS (acute respiratory distress syndrome) Pulmonary embolism.

Conclusion: Thus post COVID 19 complications are found to be more terrible than the disease itself! From these you may see how the virus was powerful please follow all the safety measures. BE SAFE!

Abstract 145

CRANIO VERTEBRAL JUNCTION ANOMALIES.

S. Vijay Jaya College Of Physiotherapy.

Background: Congenital anomalies of cervical abound.They are Severity from gross failure of development.they occur may be multiple or multiple.INCIDENCE:Frequency is unknown.clinical anatomy: atlas, axis, alanto-occipital joints, movements. neuro developmenta anatomy: develops at 12 th day of embryology. a segmental craniocaudal condensation of mesodermal tissue develop.at day22 internal specialization 42 to 44 somites formed. blood supply: anterior ascending artery, posterior ascending artery, cleft perforators classification: incompetence of odontoid process incompetency of transverse atlantial ligament. anomalies: bony anomalies; neural anomalies. clinical features: neck pain, spasticity, ataxia, frank paralysis investigation: x-ray, myelogram treatment: surgical: fusion. Pt management: IFT, stretching, strengthening exercise, passive movement, icing, stroking, electrical stimulation, traction, gait training differential diagnosis: basilar invagination, platybasia, Klippel Feil syndrome

Abstract 143

PATELLO FEMORAL JOINT INSTABILITY.

Ajay Kumar. G Jaya College of Physiotherapy

Background: The patellofemoral joint remains the enigma of orthopedics and sports medicine. Patellar dislocation is a common problem in the younger and athletic population and it is more disabling than cruciate ligament injuries.The incidence of acute lateral patella dislocations is 2–3% of all knee injuries. It is particularly higher in patients below 20 years of age.

Patho Anatomy: Stability of the patellofemoral joint is derived from a combination of local, distant, static, and dynamic factors. Locally, static stability is provided by bone/cartilage geometry and ligaments, while dynamic stability is primarily maintained by the extensor muscles including vastus medialis obliquus (VMO).

Clinical Features: Reduced flexion range of movements,Varus deformity**,**Mediolateral instability**,**Patella Alta,Patella Baja **Pt**

Management: Stretching**,**strengthening exercise for knee,Massage**,**Ultrasound**,**Postural alignment**,** Myofascial release technique**,**TENS**,**Taping**,** Exercise

Conclusion: PFJI is relatively common. It can be caused by a range of factors including generalized hypermobility, patella hypermobility, increased femoral anteversion, core and hip abductor weakness, abnormal knee rotation, trochlea dysplasia, abnormal Q angle, patella Alta, muscle and soft tissue imbalance, external tibial torsion and foot hyper pronation. Due to the multifactorial nature of PFJI, common clinical and radiological outcomes, such as the Q angle and TT:TG distance, cannot be relied upon in isolation. It is, therefore, vital to conduct a thorough clinical and radiological investigation to main cause of instability, prior to treatment.

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Abstract 144

EFFECT OF MULLIGAN'S SNAG AND POSITIONAL RELEASETECHNIQUE ON PAIN, ROM AND HEADACHE DISABILITY AMONG PATIENTS WITH CERVICOGENIC HEADACHE.

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Background: Cervicogenic headaches are unilateral frontotemporal headache with clinical symptoms are similar to migraine. Occiput-C1 and C1-C2 are the most common origin of pain. Pain gets aggravated by neck movement or pressure on certain tender points in the neck; Clinical presentation of Cervicogenic headaches is predominantly unilateral always on the same side, ipsilateral shoulder or arm pain, stiffness and decreased range of motion in neck.

Objective: To find out the effectiveness of mulligan SNAGs and positional release technique on pain, ROM and headache disability in patients with cervicogenic headache.

Methodology: Aquasi experimental study with purposive samplingtechniquewasconductedatKMCHinstituteofhealthsciencesCoimbatore.Patientswhowereclinicallydiagnosed with cervicogenic headache and fit in the selection criteria were chosen andallocated into two groups. Group A received mulligan SNAG program and Group B receivedpositional release technique alongwithhome exercise programfor4weeks

Outcome Measures: Pain, cervical rotation ROM, headache disability index.

Results: The data was analyzed using paired 't' test and independent 't' test at 5% level ofsignificance. The mean value between pre and post-test shows reduction in the severity of headache. The post-test values of the outcome measures that were pain, ROM and headache

disability in both groups shows significant difference, but greater improvements were observed in group A (mulligan SNAG).

Conclusion: This study stated that mulligan C1-C2 sustained natural apophyseal was effective in reducing pain, improving range of motion and reducing headache disability in patients with cervicogenic headache.

Abstract 145

TO COMPARE EFFECT OF ROTATOR CUFF STRENGTHRNING EXERCISE WITH WAX THERAPY VS MAITLAND MOBIISATIN TECHNIQUES IN PATIENT WITH ADHESIVE CAPSULITIS OF SHOULDER.:

M.John Samuel Raj Jaya College of Physiotherapy.

Background: Adhesive Capsulitis is a syndrome defined in its purest sense as idiopathic painful restriction of shoulder movement that results in global restriction of the glenohumeral joint. Physiotherapy treatment of adhesive capsulitis includes conventional physiotherapy and joint mobilization techniques. Conventional therapy includes the application of heat, ultrasound, and passive mobilization exercise. Maitland mobilization technique is one of them.

Objectives: To compare the effect rotator cuff strengthening with wax therapy versus Maitland mobilization with wax therapy on shoulder range of motion and functional activity in patient with adhesive capsulitis.

Method: Thirty consecutive subjects were taken for the study all subjects were received 6 therapy sessions consisting of rotator cuff strengthening exercise and Maitland mobilizationtechniques. Treatment differed between the groups compared within and analyzed using VAS scale and SPADI.

Results: There was no significance difference between groups prior to initiating the treatment A significance difference between the groups (p 0.05) was present by the third treatment

Conclusion: Both the treatments are equally effective in terms of reduction of VAS in terms of SPADI Maitland mobilization is effective

Indian Journal of Physiotherapy & Occupational Therapy

Abstract 146

"EFFECT OF PLYOMETRIC TRAINING VERSUS RESISTANCE TRAINING ON PHYSICAL PERFORMANCE IN DETRAINED ATHLETES

N Surya Prakash, Benazir Sheriff Kg College Of Physiotherapy, Kg Hospital, Coimbatore, Tamil Nādu, India

Background: Detraining is cessation of training activity, which leads to considerable loss in players performance. In this current situation due to this pandemic both recreational and competitive training sessions are abruptly cancelled, players underwent detraining such as reduced vertical jump capacity, dynamic balance in game and sprinting capacity. So retraining with suitable training procedure is essential for players. This study is analyzing the training procedure which is suitable for detrained athletes

.**Objectives:**To find out the effect of plyometric training and resistance training on detrained athlete. andto compare both the plyometric training and resistance training on detrained athlete.

Method: This study was pre and post experimental study design, totally 30 subjects selected randomly in this study. They were divided into group A and group B, plyometric training and resistance training were given respectively, for both the groups pre and posttest was taken for y-balance test, vertical jump test and 30 M sprint test**.**

Result: There is significant difference between group A and group B in y-balance test, vertical jump test and 30-M sprint test. Group A shows clinical significance than group B in posttest mean values of y-balance test, vertical jump test and 30 M sprint test

Conclusion: Plyometric training shows significant improvement than resistance training on physical performance in detrained athletes.

Abstract 147

COMBINED EFFECTIVENESS OF PLYOMETRIC TRAINING PROGRAM AND DYNAMIC STRETCHING ON PHYSICAL PERFORMANCE IN NON-COMPETITIVE MALE COLLEGE LEVEL FOOTBALL PLAYERS

Jerin Luke CherianBethany Navajeevan College of Physiotherapy Thiruvanathapuram

Background Muscle power plays an important part in most sport games. The ultimate goal of any athlete is to perform well in their sport. Leg muscle power especially vertical jump is the essential element for a successful athletic performance. Although various training methods have been effectively used for enhancement of vertical jump height, the plyometric training is a method of choice for improving vertical jump ability and leg muscle power. The effect of plyometric exercise may differ with dynamic stretching. Dynamic stretching enhances power and endurance, balance and co-ordination, speed of muscle contraction and mental preparedness. These improvements are due to the result of enhanced neuromuscular function. Dynamic stretching improves muscular performance[7]

Objectives of The Study To determine the effectiveness of dynamic stretching and Plyometrics on sprint speed in non-competitive male collage level football players by measuring sprint time in 20-meter sprint**.** To determine the effectiveness of dynamic stretching and Plyometrics on jumping agility in non-competitive male college level football players by measuring vertical jump height in squat jump

Study design Pre versus posttest experimental study design**.**

Methodology Based on the inclusion criteria 30 subjects was included in the study. They were divided into two group'si.e.; group

A and group B. Group A was the experimental group and Group B the control group. A brief introduction about dynamic stretching and plyometrics and soccer training was given to group A and about soccer training to Group B. Pretest was conducted on vertical jump height for jumping ability and sprint time for sprint speed on both Group A and Group B Group A subjects were subjected to dynamic stretching and plyometrics and soccer training for a period of 6 weeks with four sessions per week. Session consisting of one hour per day.Group B subjects was subjected to soccer training only for a period of 6 weeks with four sessions per week. Session consisting of one hour per day. Post test was conducted on vertical jump height for jumping ability and sprint time for sprint speed for both Group A and Group B. The results were statistically analyzed**.**

ResultsBased on the statistical analysis, the results of the study show that there is statistically significant difference in vertical jump and sprint time for group A (plyometrictraining program and dynamic stretching) and group B (Soccer training) subjects.

ConclusionThe study concluded that, plyometric training and dynamic stretching is very effective in improving speed and vertical jump height in college level non-competitive male football players

Keywords Plyometric training, dynamic stretching, squat jump, vertical jump

Abstract 148

EFFECT OF INTRAARTICULAR STEROID VERSUS PHYSIOTHERAPY MANAGEMENT IN TREATMENT OF OSTEOARTHRITIS ON MIDDLE AGED MEN*S.*

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Introduction: Osteoarthritis is a chronic degenerative condition of the joints caused by the breakdown of the cartilage, the major factor leading to osteoarthritis is uneven distribution of load and stress across the articulating surfaces in a joint. The osteoarthritis causes pain and impairs functionality of the patient. The primary osteoarthritis can occur due to a wear and tear changes, the weight bearing joints such as hips and knees are most commonly affected, it is caused by aging. The secondary osteoarthritis refers to the arthritis secondary to a previously occurring disease or disorder of the joint. But the etiology is different than that of primary osteoarthritis and the resulting symptoms and pathology are the same**.**

Methodology: This is a quasi-experimental study, the samples of 20 patients with age group of 45 to 50 years men were included according to the selection criteria.The samples were divided in to group A and group B of 10 each.Group A was given intraarticular steroids and Group B was given open kinematic chain exercises will be given for 10 times for 2 to 3 sets of repetitions for 2 weeks.The patient will be evaluated by using lower extremity functional scale of both groups after the both treatment program.

Conclusion: By this we will be able to conclude that physiotherapy intervention with open kinematic chain exercises will have more

effective for stage 0,1,2 and 3 osteoarthritic middle-aged men. Drug therapy is effective for stage 4 osteoarthritic men.

Keywords: Intraarticular steroids, open kinematic chain exercises,osteoarthritis,lower extremity functional scale

Indian Journal of Physiotherapy & Occupational Therapy

Abstract 149

THE PREVALENCE OF MUSCULOSKELETAL DISORDERS AMONG BUS DRIVERS – A SYSTEMATIC REVIEW

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Background: The Work-related musculoskeletal disorders (WMSDs) among bus drivers, especially the low back pain and neck pain is the major cause for substantial socio-economic losses. Bus drivers were at high risk for developing low backache and neck pain from prolonged sitting and also due to vehicular vibration. This study investigated the prevalence, risk factors and symptoms of musculoskeletal disorders in bus drivers in many other countries.

Methodology: The databases used for searching articles were PubMed, Research gate, Google scholar, science direct, embase, Cochrane. We collected 105 articles from the past 20 years.

Results: Out of 105 articles, 5 articles were included for the review. The results indicate that the prevalence of WMSDs was about 24% to 100% in the bus drivers and lower back and neck were the commonly affected regions.

Conclusion: In this systematic review we conclude that this population of bus drivers has a high prevalence of MSDs, its awareness among the society is very less and many studies have been conducted on the MSDs of this population. Among the reviewed articles prevalence of MSDs was about 24% to 100% in the bus drivers and neck and low back are the most commonly affecting region in terms of work-related musculoskeletal disorders.

Abstract 150

EFFECTIVENESS OF PHYSIOTHERAPEUTIC INTERVENTION AMONG BREAST CANCER PATIENTS UNDERGONE MASTECTOMY: A SYSTEMATIC REVIEW.

Illavenil. JSaveetha College Of Physiotherapy

Background: The prevalence of breast cancer is rapidly increasing worldwide; therefore, there is a great interest on physical therapy for the treatment of breast cancer. There are very few researches supporting the impact of physical therapy on breast cancer patients. We need to find the impact of physiotherapeutic intervention in improving the Quality of Life, fatigue, pain, and physical fitness in breast cancer patients.

Objectives: To assess the effects of physiotherapeutic intervention on breast cancer patients undergone mastectomy

Search Methods: We searched the Cochrane Library (Cochrane Database of Systematic Reviews and DARE), MEDLINE, EMBASE, and PEDro for systematic reviews published from 2000 to December 2018. In MEDLINE and EMBASE, a filter based on the SIGN filters has used to identify reviews. In PEDro and the Cochrane Library, the searches were restricted to terms in the record title, abstract, or keywords. In addition, we also screened the reference lists of included studies. We did an updated search in the Cochrane Database of Systematic Reviews and MEDLINE in December 2018.

Data Collection and Analysis: Two review authors independently selected the studies, assessed risk of bias, and extracted the data. We contacted trial authors to seek additional information when needed. Data were extracted based on characteristics and observed effects. Descriptive analysis was used to compare the following study characteristics: study design, type of mastectomy, demographic data,

number of participants, type of intervention, duration, frequency, and outcome measured.

Results: We included 20 trials that randomized 2371 women to a physiotherapeutic intervention (n = 1373) or to a control (n = 998). The duration of interventions will be ranged from 4 to 24 months, with most lasting 8 or 12 weeks. Eight studies included aerobic exercise only, 4 involved aerobic exercise and physical activity, 3studies included manual lymphatic drainage, and 5 studies included physical activity, shoulder ROM (range of motion) exercise, and compression bandaging. Studies described the comparison group as was common or standard care, no intervention, or control. Onefifth of the studies reported a minimum of 20% intervention attrition and therefore the average physical activity.

Conclusions: Conclusions regarding breast cancer-related and all-cause mortality or breast cancer recurrence were not possible. Anyhow, physical activity interventions may have small-to moderate beneficial effects on HR QoL, on emotional or perceived physical and social function, anxiety, cardiorespiratory fitness, and self-reported and objectively measured physical activity. Future studies with a low risk of bias are required to determine a combination of physical activity modes with appropriate frequencies, intensities, and durations needed to improve specific outcomes among women who have undergone mastectomy**.**

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Abstract 151

THE LEVEL OF FUNCTIONAL MOBILITY AT THE TIME OF DISCHARGE IN PATIENTS WITH ADULT HEMIPLEGIA – A SYSTEMATIC REVIEW

Ajith Kumar G.P, Saravanan. S, Tinu Priya. R, Suresh. ASaveetha College Of Physiotherapy

Background: Stroke is a leading cause for functional impairments and disabilities. The goals of rehabilitative treatment for stroke patients are to alleviate patient disabilities and to thus reduce social costs. The functional independence measure (FIM) was designed to provide a consistent data collection tool for comparison of rehabilitation outcomes. FIM is routinely performed first at admission to the rehabilitative setting and then at discharge from the setting. The aim of the study is to review the level of independence in stroke patients using functional independence measures (FIM) scale at the time of discharge.

Methodology: The database used for searching articles were PubMed, Science direct, Physiotherapy Evidence Database (PEDro), Medline. We collected 411articles from the past 20 years. Selection criteria includes acute stroke patients, stroke patients of age more than 20 years and articles in which the level of independence using FIM scale were found out.

Results: The results indicated that the mean (and range) of total FIM scores ranged from 71.3± 27.1 to 93.0 ±29.7 at the time of discharge. The mean Length of stay (LOS) ranges from 16.5 days to 53 days. Functional gain during the course of stay at the hospital ranged from 15 to 30 FIM points.

Conclusion: In conclusion, our study showed that the Functional Independence Measure total score can be used for stroke patients as an indicator of functional impairment and the amount of care needed.

FIM can be used for predictions of functional outcome for discharge and treatment planning.

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Abstract 152

PREVALENCE OF MUSCULOSKELETAL DISORDERS AMONG RURAL VS URBAN HOMEMAKERS: A SYSTEMATIC REVIEW.

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Background: Musculoskeletal disorders (MSDs) include a wide range of inflammatory and degenerative conditions affecting the muscles, tendons, ligaments, joints, peripheral nerves and supporting blood vessels. Homemaking includes cooking, laundry, sweeping, mopping, dish washing, taking care of children /elderly /bedridden /disabled etc. MSDs is identified as the most common occupational hazard of homemakers. The aim of the study is to review the prevalence rate of musculoskeletal disorders among homemakers.

Methodology: The databases used for searching articles were PubMed, Research gate, Google scholar, science direct, embase, Cochrane. Thorough screening of articles which appeared as a result of search was done. All potentially relevant papers were identified from title, abstracts and full text literatures were assessed and screened. Citation and reference of relevant articles were also checked to find out the availability of more articles.

Results: Out of 333 articles, 6 articles were included for the review. The results indicate that the prevalence of MSDs was about 31.1% to 100% in the homemakers and lower back, knee, shoulder and neck were the commonly affected regions.

Conclusion: In this systematic review we conclude that this population of full-time homemakers has a high prevalence of MSDs, its awareness among the society is very less and not many studies have been conducted on the MSDs of this population. Among the reviewed articles prevalence of MSDs was about 31.1% to 100% in

the homemakers and knee, shoulder, neck and low back are the most commonly affecting region in terms of musculoskeletal disorders.

Abstract 153

COMMON INJURIES AMONG JUDO PLAYERS: A SYSTEMATIC REVIEW.

R. SakthiSaveetha College Of Physiotherapy

Background: Judo is a kind of martial art and Olympic sports. It consists of standing and ground fighting. The most important feature of judo is its competitive element, where the players is to either throw one's opponent to the ground, immobilize (or) otherwise players can use grappling maneuver to the opponent. There is limited knowledge on injury data in judo.

Aim: To review the common injuries among judo players.

Materials and methods: The database used for searching articles were pub med, Research gate, Google scholar, Science direct, Cochrane. Selection criteria includes full time judo players,players above age of 18 and articles in which prevalence rate of common judo injuries were found out.

Results: Out of 83 articles, 10 articles were included for the review. The results indicate there were a total of 180 injuries at a rate of 9.4 per 1000 athletes – exposures (95%) which were reported by Pt judo students from 2011-2016.

Conclusion: In this systematic review we conclude that this population of judo injuries has a high prevalence rate of injuries, its awareness among the society is very less and not many studies have been conducted on the judo injuries among the reviewed articles prevalence of injuries was about 180 injuries at a rate of 9.4 per 1000 athletes.

Indian Journal of Physiotherapy & Occupational Therapy

Abstract 154

IMPACT OF FLATFOOT ON Q ANGLE: A SYSTEMATIC REVIEW

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AIM: To evaluate the impact of flatfoot on Q angle. Background: Flat foot has become a major primary condition now a days. In young adults' factors like obesity, injury to ankle, foot, aging and diabetes has become a risk factor for flat foot. Flat foot can cause biomechanical changes in proximal joints and can alter the alignment of lower limb. Flat foot causes alteration of Q angle due to internal rotation of tibia. Alteration of Q angle can lead to further more complications. This study is a systematic review on effects of flat foot on Q angle of knee joint.

Materials and methods: The various data bases used to search articles were Google scholar, Research Gate, PubMed etc. Articles published from the year 2000-2020 were included. After excluding articles based on titles, abstracts, inclusion and exclusion criteria only few articles were found to be relevant to the study.

Results: The study reviewed the effects of Flat foot on Q angle. Most studies Proved flat foot increases Q angle.

Conclusion: Further research must be done on intervention to reduce the complications of flat foot on proximal joints.

Key words: Flat foot, Q angle.

Abstract 155

A STUDY TO ANALYSIS PHYSICAL ACTIVITY LEVEL IN FEMALE STUDENTS OF RESIDENTIAL COLLEGE USING GLOBAL PHYSICAL ACTIVITY QUESTIONNAIRE

Krina Gandhi Ashok and Rita Patel Institute of Physiotherapy

Objective: The main objective of the study is to create awareness about vaginal hygiene and its correlation with vaginal discharge among college girls

Method: This observational study was conducted in ACS medical college and hospital.100 subjects with age group of 18- 25 were selected for this study.They were asked to fill up a self-administered questionnaire. scale used for questionnaire is"Genital hygiene behavior scale" The data is collected and interrupted and awareness is given among the subject to prevent the risk of vaginal infection and also to know about vaginal hygiene to prevent from vaginal discharge and other infections

Conclusion: The present study revealed that most of them though were aware about vaginal hygiene but their thoughts were not meeting the principle guidelines of vaginal hygiene. They were also not aware that vaginal discharge is normal or abnormal. Principles of correct genital hygiene are not adequately known among the students. Awareness program should be conducted especially for school and college girls as they feel shy to open out, as well as they were lack of knowledge in vaginal hygiene and discharge, which is essential aspects of women's health. Early recognition of vaginal infections, initiating appropriate treatment and taking necessary precautions are

essential in protecting and improving women's health. Genital hygiene has a key role in preventing genital infections.

Keywords: Vaginal discharge, vaginal infection

Indian Journal of Physiotherapy & Occupational Therapy

Abstract 156

EFFECT OF ANKLE DORSIFLEXORS FACILITATION ON GAIT IN CEREBRAL PALSY*S.*

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Background: Cerebral palsy is a permanent and non-progressive group of disorders in the development of movement and posture causing functional and activity limitations. Children with cerebral palsy have dorsiflexor weakness and ankle deformity, which negatively affect their gait. This study mainly focuses on facilitation of dorsiflexors to improve gait. Facilitatory techniques are useful for facilitation and enhancement of muscle activity to achieve improved motor control.

Objective: To find effect of ankle dorsiflexors facilitation on gait in cerebral palsy.

Method: An experimental study was conducted with a sample size of 25. A pre-assessment was taken by using gait parameters and range of motion. The patient underwent treatment using facilitatory techniques to ankle dorsiflexors which included joint positioning, joint compression, stretch, resistance and exteroceptive applications such as tapping, brushing, icing, pressure and vibration. The treatment was given for 6 weeks, 3 days/week for duration of 40min/session. After 6 weeks of treatment protocol, post assessment was taken by using outcome measures.

Result and conclusions: According to this study there is an improvement in gait parameters and ankle joint range of motion with P value <0.0001, which considered extremely significant. This indicates an overall improvement in gait of children with cerebral palsy.

Key words: Cerebral palsy, ankle dorsiflexors, facilitatory techniques, gait.

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Abstract 157

EFFECTIVENESS OF HAND EYE COORDINATION TRAINING ON HANDWRITING FLUENCY AMONG UNDERGRADUATE STUDENT.

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Background of the Study: Handwriting is an important tool for children's scholastic success, but as they grow and technology advances, their handwriting speed slows down, making them uncomfortable to write. Handwriting skills are strongly reliant on hand function, which requires finger strength and hand synchronization. There is a shortage of research on how to improve intrinsic muscle and hand eye coordination power to optimize handwriting speed. As a result, it is needed to assess the impact of hand eye coordination training on handwriting fluency among undergraduate student.

Objectives: To find out the effectiveness of hand eye coordination training on handwriting fluency among undergraduate student.

Methodology: Following on the inclusion and exclusion criteria, 50 patients with HS Grade 6 were chosen. They were chosen at random and placed in a single group. Hand eye coordination exercise was given to the subjects. The intervention lasted three weeks, three days per week, for a total of ten minutes every day. Before and after 3 weeks of intervention, muscle power and HEC was assessed using a hand dynamometer and plate tapping.

Conclusion: The above findings of this study shows that hand eye coordination training was beneficial in enhancing handwriting fluency in undergraduate students.

Key words: Hand writing speed, intrinsic muscle power, theraputty.

Indian Journal of Physiotherapy & Occupational Therapy

Abstract 158

EFFECT OF EXERCISE TRAINING PROGRAM IN PAIN, MUSCLE STRENGTH AND FUNCTIONAL MOBILITY IN POST DECOMPRESSION SURGERIES

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Background: Cervical disease is caused by various factors like degeneration, disc protrusion. According to previous studies, there are 20 – 30% patients with cervical disc disease. There are various complications according to the level of lesions. Cervical disc diseases are the condition which affects the motor and sensory components of the body. This study specially emphasis on the sensory and motor components. This study focuses on the stage wise progression of the patient. This study emphasis on the increasing the functional ability of the patients. Greater efficacy of rehabilitation can be brought about by early intervention for improving strength and increase sensory integration which might achieve activities of daily living goals.

Objective: To find the effect of exercise training program in patients with cervical decompression surgeries.

Method: The type of study is experimental. The participants involved were assessed for strength, pain and functional mobility. The participants are treated for the same by giving structured protocol. The treatment protocol included strengthening exercises and functional mobility exercises.

Result and Conclusion: The structured exercises have proven beneficial in the patients. P value is <0.0001 which is considered extremely significant. Structured exercises programis effective in reducing pain, improving muscle strength and functional mobility in patients with post cervical decompression surgeries.

Keywords: Cervical decompression surgeries, strength, functional mobility.

Indian Journal of Physiotherapy & Occupational Therapy

Abstract 159

EFFECTIVENESS OF AEROBIC OR AEROBIC AND RESISTANCE CIRCUIT TRAINING ON BLOOD PRESSURE, ENDURANCE LEVEL AND QUALITY OF LIFE IN STAGE 2 HYPERTENSION SUBJECTS

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Background: Hypertension is defined as a systolic blood pressure of 140 mm Hg or more or diastolic blood pressure of 90 mm Hg or more, or taking antihypertensive medication. Hypertension is a major cause of morbidity and mortality. Regular aerobic exercise reduces blood pressure and is recommended as part of the lifestyle modification to decrease and prevent cardiovascular risk.Resistance training directly halts and reduces the blood pressure through central and peripheral vasodilatation.

Objective: To study the effect of aerobic training on blood pressure, endurance and quality of life in stage 2 hypertension subjects. To study the combined effect of aerobic and resistance circuit training on blood pressure, endurance level and quality of life in stage 2 hypertension subjects

Method: An interventional study was conducted. The exercise intervention was given to the patient. A sample size of 50 was selected. Group A received aerobic training and Group B received aerobic and resistance circuit training.

Result And Conclusion: The statistical analysis showed significant improvement on subjects who underwent aerobic with resistance circuit training with hypertension ($P<0.05$), endurance level ($P<0.01$) and quality of life ($P<0.05$).

KEYWORDS: BP, HTN, aerobic training, resistance, circuit training, endurance, quality of life.

Abstract 160

PALLIATIVE CARE IN ONCOLOGY- PHYSIOTHERAPY STUDENTS KNOWLEDGE AND ATTITUDE

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Background: Physiotherapy has a valuable role among the palliative team members who address problems like physical, functional, psycho-social, decrease in quality of life, spiritual dimensions of care. Studies have documented that other health care professionals are inadequately prepared to take care of patients in pain unlike physiotherapy.

Objectives: To study the knowledge and attitude of UG students regarding the palliative care in oncology.

Method: A descriptive cross-sectional survey was conducted for the study among physiotherapy students in Krishna Hospital. The study utilized a questionnaire which had statements about palliative care for each of which the participant had to indicate 'correct', 'incorrect' for knowledge and 'yes', 'no', 'strongly disagree', 'disagree', 'uncertain', 'agree', 'strongly agree' for attitude.

Result: More than half of the students were likely to disagree that palliative care is given only to dying patients, also, disagreed to withdraw from his/her involvement with the patient.Most of the students disagreed to establish close relationship with the dying patient and most agreed to when the patient asks "Doctor am I dying?", it is best to change the subject to something cheerful. Approximately every participant agreed that it would make them uncomfortable if they entered the room and found the patient crying.

Conclusion: It was found that the knowledge about the concept of palliative care is poor whereas the attitude is fair among the students.

Abstract 161

PELVIC GIRDLE PAIN IN PREGNANCY AND PHYSICAL ACTIVITY -MODERATE? VIGOROUS?

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Background: Pelvic girdle pain is characterized as pain between the posterior iliac crest and the gluteal fold, especially over the sacroiliac joint (SIJ) and pubic symphysis. Studies shows that 25% of women experience severe pelvic pain during pregnancy and 8% are severely disabled due to pelvic girdle pain. Physical activity (PA) is an important component of a healthy pregnancy, for both the mother and her child.

Aim: This study analyzed the association between the physical activity (PA) and pelvic girdle pain (PGP) during pregnancy

Method: Total 250 mothers were screened and finally 150 participants were selected according to the inclusion and exclusion criteria. They were asked to fill-up the Pregnancy physical activity questionnaire (PPAQ), Pregnancy musculoskeletal dysfunction scale (PMDS) to assess the physical activity level and musculoskeletal dysfunction. Mothers who complaints of PGP were clinically diagnosed and were asked to fill the pelvic girdle questionnaire (PGQ).

Results: Data was analyzed using SPSS version 20.0. It was found that there is an association between total physical activity and pelvic girdle pain in pregnancy.

Conclusion: The study indicated that physical activity is associated with pelvic girdle pain in pregnancy. It was observed that a trend of

increased physical activity is a significant factor for the reduction of PGP reporting. Hence moderate physical activity is recommended during pregnancy.

Keywords: Physical activity, Pelvic girdle pain, pregnancy, physical activity questionnaire, pelvic pain questionnaire

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Abstract 162

PERSPECTIVE OF UNDERGRADUATE PHYSIOTHERAPY STUDENTS ON DECISION MAKING AND PATIENT AUTONOMY

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Background: Autonomy refers to the decision-making dimension of the patient role. Students should be aware of the implications of paternalistic decision making and patient autonomy for an ethical clinical practice because recognition of professional accountability involves respecting patients' autonomy. This survey aims to study the perspective of undergraduate physiotherapy students on decision making and patient autonomy.

Methodology: 300 undergraduate physiotherapy students of 3rd, 4thyear and internswereincluded in the study. Informed Consent was taken. A questionnaire comprising demographic data followed by Ideal Patient Autonomy Scale was forwarded to the participants. The survey was conducted through an online software service, Survey monkey. The statements were to be answered on a 5-point Likert scale. Data collection and analysis was done by the software itself.

Results: The perspective of the students on autonomyin terms of patient's decision making ($p>0.004$) and discussion about complications of treatment ($p>0.001$) were statistically significant. The results of the study indicate that the knowledge of patient autonomy and ethical decision making in undergraduate physiotherapy students was fairly low

Conclusion: The students who were familiar with the terms 'patient autonomy' and 'autonomous decision making', perceived them to be important, valuable and yet challenging. Considering that these students will be practicing clinicians in a few years, the study calls attention to the serious lack of awareness about patient autonomy in physiotherapy student

Abstract 163

EFFECTIVENESSOF STAYING UPRIGHT EXERCISE TO IMPROVE THE BALANCE, STRENGTH AND TO REDUCE THE RISK OF FALLS IN OLDER ADULT- AN EXPERIMENTAL STUDY

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Background And Objectives Falls in older people are a major public health issue. Especially reductions in muscle strength and poor balance may lead to mobility limitations and further disability. The aim of study is to find out the effectiveness of staying upright exercise to improve balance, strength and to reduce risk of falls in older adults.

MethodologyA total 30 subjects are selected based on inclusion and exclusion criteria. They were divided to Group A: (Intervention group) Staying upright exercise group with 15 subjects. Group B: (Control group - Hand out protocols) The simple home - based balance exercise group with 15 subjects. The intervention duration of study was 12 weeks, 5 days/ week, one session in the morning for one hour.Strength exercises of lower limb, upper limb and trunk exercise. Static, dynamic and all balance exercise. And gait training exercises were measured at the begging and 12 weeks of after intervention using fear of falling - the fall efficacy scale - international, statics and dynamics balance - berg balance scale, lower extremity strength - 5x sit-to-stand test.

ResultIn paired ‘t’ test and unpaired ‘t’ test is shows significant difference in fall efficacy scale, bergbalance scale, 5x sit-to-stand.

The experimental group shows significantly higher improvement in all the three parameters when compared to the control groups.

ConclusionSo, I conclude that staying upright exercises is more effective intervention when compared to the simple home-based balance training program. And the study proves the effectiveness of staying upright exercise to improve balance, strength and to reduce risk of falls in older adults.

Abstract 164

EFFECT OF MEDIUM FREQUENCY CURRENT VERSUS HIGH FREQUENCY CURRENT ON MECHANICAL NECK PAIN COMPARATIVE STUDY

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Background: Mechanical neck pain is defined as generalized neck pain provoked by sustained neck postures, neck movement and pain on palpation of cervical musculature without pathologies. Mechanical neck pain is experienced by 30% to 50% of the general population. The causative factors include everyday activities like bending over a desk for hours, having poor posture while watching television or reading, sleeping in uncomfortable position. Physiotherapy interventions include exercise therapy and electrotherapeutic modality High frequency modality (shortwave diathermy) working on mechanism of pain relief by producing heating effects in deeper tissues resulting in vasodilatation. Medium frequency modality (interferential therapy) on the other hand works by acting on pain gate mechanism.

Objective: The purpose of this study is to compare efficacy of medium frequency current and a high frequency current in relieving pain and improving function in patients with mechanical neck pain.

Methodology:20 subjects were selected and divided into 2 groups based on selection criteria. Each group consist of 10 subjects GROUP A – received medium frequency (interferential therapy) GROUP B – received high frequency (shortwave diathermy)

Results: The result of this study shows statistical difference between medium and high frequency current in terms of pain relief and

improvement in function of mechanical neck pain patient. Interferential therapy was more recommendable.

Keywords: Mechanical neck pain, medium frequency current, high frequency current.

Abstract 165

EFFECTIVENESS OF CRYOTHERAPY WITH STRETCHING VERSUS STRETCHING ALONE IN VOLLEY BALL PLAYERS WITH DOMS– A COMPARATIVE STUDY

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Background : DOMS (Delayed Onset of Muscle Soreness) is the pain and stiffness felt in muscles occurs several hours to days and peaks in 24-48hrs. DOMS occurs due to an unaccustomed strenuous sport activities.Volleyball is considered to be one of the most explosive and fast paced sports now-a-days. Most commonly affected muscle group was Quadriceps. Quadriceps were undergoing for eccentric muscle contractions resulted in greater disruption to the muscle tissue which affects muscle function further when compare to associated muscle group. DOMS is commonly experienced byrecreational athletes who sporadically participate in sports. Physiotherapy interventions such as Cryotherapy and Stretching were found to be more effective in DOMS.

Objective: The purpose of this study is to compare the efficacy of Cryotherapy with stretching and stretching alone in reducing pain, retain the muscle strength, muscle functionalactivity and tissue elasticity and improves range of motion inVolleyball players with DOMS.

Methodology: 20 Subjects were selected and divided into 2 groups based on selection criteria. Eachgroup consists of 10 subjects. Only male subjects were included with the age group of 18-23. For Group A, Cryotherapy with stretchingwas given,24 hours after a matchFor Group B, Stretching alone was given,24 hours after a match

Results: The result of this study shows statistical difference between Cryotherapy with Stretching andStretching alone in terms of pain reduction, muscle function and preservation of muscle strength and tissue elasticityin volleyball players with DOMS. Also revealed that Cryotherapy with Stretchingwas considered to be effective in minimizing the occurrence of DOMS, when compare to stretching alone. KEYWORDS: Delayed Onset of Muscle Soreness, Volleyballplayers ,Quadriceps muscles ,Cryotherapy Stretching, Effectiveness.

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Abstract 166

EFFECT OF TIME BASED CONTROLLED ENVIRONMENT EXERCISES IN IMPROVING ACADEMIC PRFORMANCE AMONG COLLEGE STUDENTS – A PILOT STUDY

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Introduction: Circadian rhythm are regular predictable variations in circulation level of hormones. Circadian rhythm functions are controlled by suprachiasmatic nucleus in hypothalamus in the endocrine and neuro endocrine processes. The functions involving metabolism, energy balance, appetite, sleep wake cycle.

Aim:The pilot study aims to identify the best environment that would be enhancing the academic performance using time based controlled environment exercises.

Objective: To understand the adaptation of circadian rhythm in accordance with exercises that are designed on a timely basis Materials Required :1Customized chamber (the illumination shall be controlled from outside)2Book (a known one but not so familiar in the respective field)3Table lamp 4Clock Log note to write the flow of activity

Abstract 167

COMPARING THE EFFECTS OF FOAM ROLLER VERSUS PNF STRETCHING ON ANKLE MOBILITY IN FEMALE RUNNING ATHLETES

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Objective: A Study to compare the effects of Foam roller release versus PNF stretching on ankle mobility in female athletes

Background:The Athletic world is most different than that of the laboratory world. Proprioceptive neuromuscular facilitation (PNF) stretching is a more advanced form of flexibility training that involves both stretch and a contraction of the muscle group. Foam rolling is a form of self- myofascial release (SMR) that also increases joint ROM

Methodology: It is an experimental study of comparative pre-post type and a sample of 30 female subjects were included in this study. This study was carried out at faculty of physiotherapy, DR.MGR UNIVERSITY for 3 months. The subjects who are in the age group between 18-28 years, difficulty in running, decreased dorsiflexion range of (5-10) degree, muscle stiffness, decreased flexibility was included in the study. Subjects with previous fracture, neurological conditions, ankle related or lower limb injury will be excluded in the study. The outcomes measures such as ROM and performance ability were measured using Goniometer and Foot ankle ability scale(FAAM).

Procedure:Thirty subjects are randomly divided into two equal groups, Group A received Foam roller stretching, Group B received PNF stretching.Pre- post test is checked by goniometer and Foot ankle ability measure (FAAM)

Result: The study reveals that there is a highly significant differences in the post test values of PNF-CR technique and FAAM sports sub scale questionnaire in group B at $p \leq 0.001$ and in Group A, there is no significant

difference in the post test values of Foam roller technique and FAAM scale questionnaire

Keywords:Ankle-Dorsiflexion-Flexibility--Foamrolling-stretching

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Abstract 168

AWARENESS OF VAGINAL HYGIENE & ITS IMPACT ON VAGINAL DISCHARGE AMONG COLLEGEGIRLS

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Background: Vaginal hygiene and their effect on vaginal discharge is necessary to understand about vaginal hygiene to prevent genital infections.vaginal discharge can be normal or need to be checked out.vaginal discharge can be of many colors and several indicate a healthy body. abnormal discharge may be yellow or green, chunky in consistency, or foul smelling. Yeast or bacterial infection usually causes abnormal discharge, mostly it is due to lack of vaginal hygiene. Vaginal hygiene is very important and it needs to be understood to reduce the risk of urinary tract infections and also other infections related to genitals.

Objective:The main objective of the study is to create awareness about vaginal hygiene and its correlation with vaginal discharge among college girls.

Method: This observational study was conducted in ACS medical college and hospital.100 subjects with age group of 18- 25 were selected for this study.They were asked to fill up a self-administered questionnaire. scale used for questionnaire is"Genital hygiene behavior scale" The data is collected and interrupted and awareness is given among the subject to prevent the risk of vaginal infection and also to know about vaginal hygiene to prevent from vaginal discharge and other infections

Conclusion:The present study revealed that most of them though were aware about vaginal hygiene but their thoughts were not meeting the principle guidelines of vaginal hygiene. They were also not aware that vaginal discharge e is normal or abnormal. Principles of correct genital hygiene are not adequately known among the students. Awareness program should be conducted especially for school and college girls as they feel shy to open out, as well as they were lack of knowledge in

vaginal hygiene and discharge, which is essential aspects of women's health. Early recognition of vaginal infections, initiating appropriate treatment and taking necessary precautions are essential in protecting and improving women's health. Genital hygiene has a key role in preventing genital infections.

Keywords: Vaginal discharge, , vaginal infection

Abstract 169

TO FIND THE IMPACT OF LOCKDOWN ON INCREASING CASES OFPOLYCYSTIC OVARIAN SYNDROME AMONG COLLEGE GIRLS.

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Background: Polycystic ovarian syndrome (PCOS) is common endocrine disorder leading cause of infertility among women of reproductive age. Women with PCOS are at reproductive problem including infertility, endometrial cancer, late menopause including insulin resistance, type 2 diabetes mellitus, dyslipidemia and cardiovascular diseases. In recent times polycystic ovarian syndrome cases in India has been increasing. It has been reported that 30% rise in PCOS cases over the past few months. This is because of lifestyle changes women have stopped exercising, spending more time watching tv, computer, phones. Large scale survey was conducted in India in 2020 it shows that about 16 percent of women between the ages of 20 and 29 years suffers from PCOS.

Objective:The main objective of the study is to investigate whether there is relationship between lockdown and increasing cases of PCOS among college girls.

Method: This observational study was conducted in ACS medical college and hospital. 100 subjects with age group of 18- 30 were selected for this study based on Rotterdam criteria. They were asked to fill up a self-administered questionnaire. The data is collected and interrupted and awareness is given among the subject to prevent the risk of PCOS and to create healthy lifestyle.

Result: The result shows that about 58% were given the score greater than >10 which means they are highest risk of getting PCOS. So, awareness created among the subject to prevent further complication.

Conclusion: The present study concludes that PCOS occurrence is more among college girl during lockdown which may leads to major hurdle for their healthy life which ultimately leads to infertility as it is due to major risk factors like changes in the diet, being physically inactive, stressful and unbalanced unhealthy lifestyle,The conclusion will be revealed at the end of the study.

Keywords: Polycystic ovarian syndrome, lockdown, girls, Rotterdam criteria