VOL. 1 | THE PHYSIO BROTHERS | ISSUE 2

PHYSIOTRENDS

Advancing Physiotherapy Knowledge & Innovation

AGING WITH SARCOPENIA
A BRIEF OVERVIEW

INCIDENCE OF LOW BACK PAIN AND IT'S CORRELATION WITH LOWER CROSS SYNDROME
AND FLAT FOOT IN PHYSIOTHERAPY STUDENTS

EMPHASIS OF EARLY INTERVENTION IN YOUNG STROKE
-A CASE REPORT

IMPORTANCE OF WARM UP AND COOL DOWN PERIOD BEFORE DOING AEROBIC EXERCISE

COMPREHENSIVE WELLNESS FOR WOMEN
AN INTEGRATED PHYSIOTHERAPY APPROACH

Interview with KUNAL PATEL

www.physiotrends.vercel.app

JUNE 2024

Founder

Dr. Darshan Parmar
MPT in Neurological Conditions
Assistant Professor at KD Institute of Physiotherapy

Co-Founder

Dr. Sujay Makwana
MPT in Neurological Conditions

Chief Editor

Dr. Jaspreet Kaur Kang
PhD., MPT in Neurological Conditions
Principal at K.D.Institute of Physiotherapy

Advisory Members

Dr. Neeta Vyas
Ph.D. Indian Board of Alternative Medicines
Professor at Ahmedabad Institute of Medical Sciences

Dr. Dinesh Sorani
Ph.D., MPT in Physical And Functional Diagnosis
I/C Principal at Govt. Physiotherapy College Jamnagar

Dr. Ashish Kakkad
Ph.D., MPT in Neurological Conditions
Principal & Professor at Faculty of Physiotherapy, Marwadi University

Associate Editors

Dr. Megha Sheth
MPT in Rehabilitation
Lecturer at SBB College of Physiotherapy

Dr. Karishma Jagad
MPT in Neurological Conditions
Sr. Lecturer at Govt. Physiotherapy College Jamnagar

Dr. Mihirdev Jhala
Ph.D., MPT in Neurological Conditions
Principal at JG College of Physiotherapy

Editors

Dr. Parita Dave
MPT in CardioPulmonary Conditions
Associate Professor at KD Institute of Physiotherapy

Dr. Chirag Solanki
MPT in Neurological Conditions
Assistant Professor at School of Physiotherapy, RK University

Dr. Mansi Shingala
Ph.D., MPT in Sports
Tutor cum Physiotherapist at Govt. Physiotherapy College, Jamnagar

Reviewers

Dr. Disha Monsara
Assistant Professor at KD Institute of Physiotherapy

Dr. Patel Pooja
Assistant Professor at Ananya College of Physiotherapy

Dr. Sujit Vasava
Assistant Professor at UKA Tarsadia

Dr. Nehansi Chauhan
Assistant Professor at Venus Institute of Physiotherapy

Dr. Poorvin Shah
Assistant Professor at KD Institute of Physiotherapy

Dr. Hetvi Dimothe
Assistant Professor at KD Institute of Physiotherapy

Dr. Aarsh Bhatt
Assistant Professor at Silver Oak

Dr. Bhaumi Dave
Assistant Professor at KD Institute of Physiotherapy

PHYSIOTREDS

CONTENT

VOLUME 1, ISSUE 2 (JUNE 2024)

FOUNDER'S NOTE

Dear Reader,

As the founder of PhysioTrends, I am delighted to welcome you to the second issue of our online magazine dedicated to the world of physiotherapy.

In this edition, we continue our journey of exploring latest trends, Interview, case study and insights in the field of physiotherapy. From innovative techniques to emerging technologies, our goal remains to provide you with valuable knowledge and resources to enhance your practice and advance the profession.

I encourage you to dive into the articles and interviews curated by our team of experts. May this issue inspire you, spark new ideas, and deepen your understanding of the ever-evolving landscape of physiotherapy.

Thank you for your continued support and dedication to improving lives through the power of physiotherapy.

Warm Regards,

Dr. Darshan Parmar

Dr. Darshan Parmar

Assistant Professor at
KD Institute of Physiotherapy

FOR PUBLICATION CONTACT US !

+91 7984377793
physiotrendsmagazine@gmail.com

VOLUME 1
ISSUE 2
JUNE 2024

CO-FOUNDER'S NOTE

Dear Reader,

As a co-founder of Physiotrends, I am incredibly grateful for the journey we've shared thus far. It's been an honor to contribute to this platform dedicated to empowering both physiotherapists and the public with knowledge and resources.

Our core goals have always been centered on Elevating physiotherapy, Empowering practitioners and Educating the public.

The future of Physiotrends is brimming with possibilities. We envision ourselves as a leading online resource, not just in India, but across the globe.

This journey wouldn't be possible without the dedication of our entire team. From our insightful contributors to our meticulous editors, everyone's unwavering commitment has been instrumental in Physiotrends' success.

Most importantly, a heartfelt thank you goes out to our readers. Your engagement, feedback, and trust motivate us to keep pushing boundaries and deliver exceptional content. We are here to serve you, and your continued support fuels our passion to make Physiotrends an invaluable resource for the physiotherapy community.

Together, let's keep empowering physiotherapy and fostering a healthier future for all.

Warm Regards,

Dr. Sujay Makwana

Dr. Sujay Makwana

MPT in Neurological Conditions

CHIEF EDITOR'S NOTE

Welcome to the second issue of PhysioTrends, your go-to digital magazine for all things related to physiotherapy. We are thrilled to bring you another edition filled with insightful content and expert perspectives that will enhance your practice and keep you informed about the latest developments in our field.

In this issue, we have a special treat for sports enthusiasts: an exclusive interview with renowned footballer Kunal Patel. Kunal shares his journey, the challenges he faced during his career, and the pivotal role physiotherapy played in his recovery and performance. His story is a testament to the critical impact our profession has on athletes at the highest levels.

Our goal is to provide you with evidence-based information that can be directly applied to improve patient outcomes.

We also feature a compelling case study that illustrates the application of these techniques in real-world scenarios. This case study offers valuable insights into patient management and showcases the tangible benefits of advanced physiotherapy interventions.

Thank you for your continued support and dedication to the field of physiotherapy. We hope you find this issue both informative and inspiring.

Best Regards

Dr. Jaspreet Kaur Kang

Principal at

KD Institute of Physiotherapy

In the world of professional sports, setbacks are not uncommon. For Kunal Patel a promising football player, one such setback came in the form of a devastating injury on the football ground a year ago. It was a moment that shook him to his core, marking what seemed like the lowest point in his career. However, what followed was not just a tale of resilience but a testament to the power of dedication, perseverance, and unwavering passion.

From Setback to Success: Kunal Patel's Inspirational Journey in Football

The injury demanded a complete reevaluation of Kunal's approach to his craft. Recognizing the importance of holistic recovery, he delved into a rigorous regime of rehabilitation, under the guidance of his trusted surgeon, Dr. Rohan Vakta, and dedicated physiotherapist, Dr. Ronak & Dr Shivani Every step of the journey was marked by unwavering support and expertise, as they worked tirelessly to ensure Kunal's return to form.

But it wasn't just physical healing that Kunal pursued; he understood the pivotal role that nutrition played in his recovery and performance. With meticulous attention to his diet, he fueled his body for the demanding road ahead, understanding that excellence on the field was a culmination of both physical and mental preparedness.

The post-surgery period was grueling, with each day presenting new challenges to overcome. Yet, Kunal approached it with an unwavering resolve, dedicating himself wholeheartedly to the task at hand. Every exercise, every moment spent in rehabilitation was a testament to his unyielding spirit and determination to rise above adversity

Through sheer hard work and determination, Kunal not only overcame his injury but emerged stronger than ever. Today, he stands tall as a testament to the power of resilience, competing in the prestigious European League with a reputable club. It's a feat that speaks volumes about his character and dedication to his craft.

But Kunal's journey doesn't end here. His sights are set on even greater heights, fueled by the desire to make his parents proud and represent his country on the international stage. His story serves as an inspiration to aspiring athletes everywhere, reminding them that setbacks are merely stepping stones on the path to greatness.

In Kunal Patel's journey, we find a tale of triumph over adversity, a story of resilience in the face of challenges, and above all, a testament to the unwavering power of the human spirit.

AGING WITH SARCOPENIA

A BRIEF OVERVIEW

Sarcopenia is a condition characterized by the loss of muscle mass, strength, and functionality that often occurs with aging. This age-related muscle wasting can have significant impacts on an individual's quality of life, leading to decreased mobility, increased risk of falls, and overall reduced ability to perform daily tasks.

DOI: 10.5281/zenodo.11181309

Dr.Saad Ali Al Sehemi, BPT, MSPT, Chief Physical therapist, Director &Owner of Physio Plans Physiotherapy and Rehabilitation Centre, Medina Al Munawwarah, Saudi Arabia.

While some muscle loss is a natural part of the aging process, sarcopenia goes beyond the typical decline in muscle mass that occurs with age. It is often associated with factors such as decreased physical activity, poor diet, hormonal changes, and chronic illnesses. Additionally, sarcopenia can be exacerbated by conditions like inflammation, insulin resistance, and oxidative stress.

The consequences of sarcopenia can be far-reaching. Loss of muscle mass can lead to a decrease in metabolism, making it more difficult to maintain a healthy weight. It can also impact balance and coordination, increasing the risk of falls and fractures. Furthermore, reduced muscle strength can affect overall mobility and independence, potentially limiting an individual's ability to live an active and fulfilling life.

Preventing and managing sarcopenia requires a multifaceted approach. Regular physical activity, particularly resistance training, is essential for preserving muscle mass and function. Adequate protein intake is also crucial for supporting muscle maintenance and repair. Additionally, maintaining a healthy weight, managing chronic conditions, and ensuring adequate vitamin D and calcium levels can help mitigate the effects of sarcopenia.

Early detection and intervention are crucial for addressing sarcopenia, enabling healthcare providers to assess muscle mass and strength, and implementing targeted interventions like exercise programs.

Sarcopenia, a significant health concern, can significantly impact physical function and well-being, particularly in older adults.

Effective prevention and management can be achieved through a healthy lifestyle and regular exercise.

DOI: 10.5281/zenodo.11181191

Research Roundup

IMPORTANCE OF WARM UP AND COOL DOWN PERIOD BEFORE DOING AEROBIC EXERCISE

By
DR. PRATIMA PARMAR
MPT CARDIOPULMONARY

An exercise routine may feel time consuming — but no matter what type of workout you choose, or how busy your schedule is, it's critical that you don't skip warming up before your workout, or cooling down afterwards. You'd be surprised how many people decide they don't need to warm up before working their core, or that it's fine to skip their cool-down after jogging on the treadmill.

In most cases, it's not because people hate doing the warm up or cool-down, but because they want to save time. Unfortunately, it's not just the main part of your workout that matters — and the people who skip the processes before and after a workout may be doing more harm to their bodies than they realize.

Why Warming Up and Cooling Down Is So Important

A warm-up and a cool-down both involve doing exercises at a lower intensity and slower pace, which improves your athletic performance, prevents injuries, and helps with recovery from exercise.

Warm up activities include light jogging, or cycling slowly on a bike. Warming up before exercise prepares your cardiovascular system for physical activity, by increasing the blood flow to your muscles, and raising the temperature of your body. It also helps to lower the risk of getting injured — when your muscles are adequately warmed up, the movements, stretches, and strain you put on them during your workout is less severe. This also minimizes muscle soreness.

Warm up activities include light jogging, or cycling slowly on a bike. Warming up before exercise prepares your cardiovascular system for physical activity, by increasing the blood flow to your muscles, and raising the temperature of your body. It also helps to lower the risk of getting injured — when your muscles are adequately warmed up, the movements, stretches, and strain you put on them during your workout is less severe. This also minimizes muscle soreness.

Cooling down after your workout aims to gradually bring your heart rate and blood pressure to its normal level — the level it was at prior to exercising. During your workout, your heart rate has been pumping much higher than it does normally, and it's important to ease it back down instead of abruptly stopping all motion. Cooling down also helps to regulate your blood flow, which is especially important for people who undertake endurance sports such as long distance running. To safely cool down, gradually reduce the pace of your exercise during the last 10 minutes of your session — for example, if you're jogging, reduce your pace to a brisk walk for the last 10 minutes.

Benefits of Warming Up

• Improved Performance
Warming up improves your athletic performance in the following ways:

• Improved Blood Flow — Warming up for 10 minutes with an easygoing activity improves blood flowing to your skeletal muscles, and opens up blood capillaries. Your blood carries the oxygen needed for your muscles to function, so increasing your blood flow is one of the best things you can do to set your muscles up for a workout.

• Improved Oxygen Efficiency — When you do a warm-up exercise, oxygen is released from your blood more readily, and at higher temperatures. Your muscles demand higher amounts of oxygen while exercising, so it's important to make this oxygen more available through a warm-up activity.

DR. PRATIMA PARMAR
MPT CARDIOPULMONARY

• Faster Muscle Contraction/Relaxation — Warming up with physical activity raises your body temperature, which in turn, improves your nerve transmission and muscle metabolism. The end result? Your muscles will perform faster and more efficiently.

• Injury Prevention
Warming up prevents injuries by loosening your joints, and improving blood flow to your muscles — making your muscles less likely to rip, tear, or twist in a harmful way during your workout. Stretching also helps prepare your muscles for the physical activities you're about to perform.

• Mental Preparation
A side benefit of warming up is that your brain will become focused on your body and your physical activity as you go through the process. This focus will carry over into your training session to help you to improve your technique, coordination, and skill.

Benefits of Cooling Down

• Recovery
After intense exercise, lactic acid builds up within your system, and it takes time for your body to clear it out. Cooling down exercises (such as stretches) can aid this process of releasing and removing lactic acid, helping to speed up your body's recovery post-workout.

• Reducing DOMS (Delayed Onset Muscle Soreness)
While muscle soreness is to be expected after exercise, a significant amount of DOMS is very uncomfortable, and can prevent you from exercising in the future. A study performed by California State University found that moderate intensity cycling after strength exercise helped to reduce DOMS. Cooling down after exercise helps to alleviate excessive muscle soreness, keeping you more comfortable and allowing your body to bounce back before your next workout.

What Happens If You Don't Properly Warm Up and Cool Down?

Increased Risk Of Injury

Over 30% of injuries seen by sports medicine clinics are skeletal muscle injuries — which can be easily prevented by warming up and stretching.

Blood Pooling

If you stop exercising abruptly without cooling down, your muscles will suddenly stop contracting vigorously. This can cause blood to pool in the lower extremities of your body, leaving your blood without as much pressure to be pumped back to the heart and brain. As a result, you may dizzy and lightheaded, and you may even faint.

Increased Stress On Cardiovascular System

Warming up helps you to gradually increase your heart rate and breathing to a level that will be able to meet the demands of your workout. If you start exercising at a strenuous level without warming up first, you will place unnecessary stress on your heart and lungs.

The next time you feel like you can't spare the extra 10 minutes to cool down after running, think carefully about the effect it will have on your body. Those 10 minutes certainly seem worth it when you consider that you're helping prevent injuries to your body, improve your performance, and aid your post-workout recovery.

SmartPT Academy

PHYSIOTHERAPY CPD COURSES ON DEMAND

Affordable , Study anytime, anywhere. Join our worldwide community of Physiotherapy professionals

- CPD CERTIFICATE
- 10 + SPECIALITIES
- INTERNATIONAL LECTURER

HOW TO BECOME CPD CERTIFFIED

1. EXPLORE OUR CPD COURSE
2. ENROLL IN COURSE
3. PASS THE QUIZE
4. EARN CPD CERTIFICATE

FOR GROUP DISCOUNT EMAIL US

support@physiotherapyonline.net

VISIT OUR WEBISTE NOW

www.smartptacademy.com

Media Collaborator

PHYSIOTRENDS
Advancing Physiotherapy through Knowledge & Innovation

Powered By

PHYSIOTHERAPY ONLINE

DOI: 10.5281/zenodo.11181267

EMPHASIS OF EARLY INTERVENTION IN YOUNG STROKE
A CASE REPORT

Dr. MADHURIKA KATE (PT)
MPT (Neurosciences)
PhD Scholar,
Lovely Professional University, Punjab

ABSTRACT

The purpose of this study was to determine the underlying reason for occurrence of stroke in young craftsman and make him achieve his goal of performing activities of daily living independently post stroke. He underwent physiotherapy treatment for seven days while admitted in the ward where the exercises were given on the basis of impairments. The therapy was targeted to achieve his goal to return to his working routine and earn for the living for him as well as his family.

Keywords
Young stroke, Hemorrhage

INTRODUCTION

The occurrence of stroke in young adults comprises of around 10-15% of total stroke in a year worldwide.

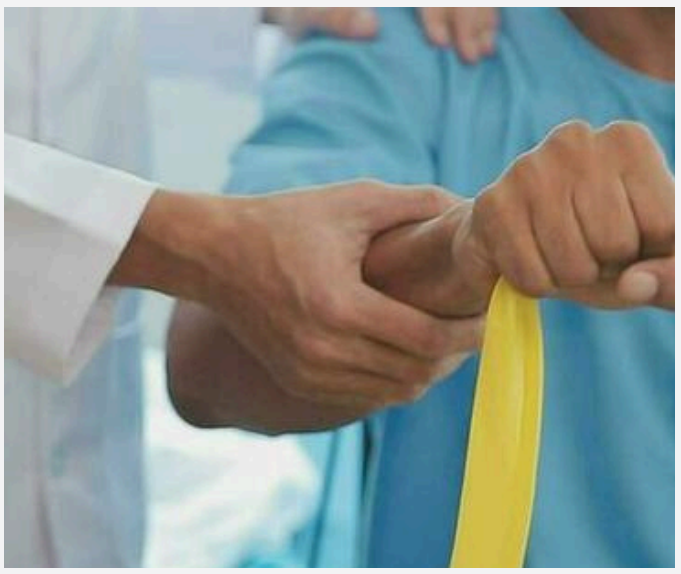
1. Most of young strokes encountered are ischemic ones whereas very few of them are found to be hemorrhagic. Approximately 30-35% of young stroke cases are accounted to be hemorrhagic (Intracerebral and subarachnoid).

2. Stroke is one of the leading causes of disability, morbidity and mortality in the world. People suffering from stroke have greater impact on family and social life. They are often employed, peaking at their careers, caring for the dependents in the family which is affected due to impairments persisting post stroke. Rehabilitation and recovery process for young stroke survivors differs from those in older adults. It involves restoring the person to his or her functional status before stoke as well as able to return to occupation.

Most of young stroke cases do not have known and usual etiologies. There many underlying possibilities not understood at time of onset such as developmental cardiac abnormalities, hematological disorders, chronic systemic inflammation and many others.

3. Many risk factors are also responsible for stroke in young adults such as drug abuse, contraceptive use, and hypertension.

Young stroke is a major cause of concern in developing countries such as India as they belong to earning strata of the society. This case study aimed at knowing the underlying pathology in a young stroke patient and rehabilitates him to a functional level so that he can join his job.



CASE DESCRIPTION

A 26 year old male, craftsman by occupation, presented with history of loss of consciousness followed by regaining it after 2 mins while playing outdoors and was in usual state after that. Around 5 hours after this episode he had a syncope accompanied by involuntary movements and loss of consciousness. He was reported to have seizure episode and was admitted in ICU in local hospital. He underwent emergency intubation was on ventilator for a day and then weaned off. He was suggested to shift in tertiary hospital care, where on the way he had a fall in ambulance but sustained no external injuries. After around 3 days, he had sudden onset of severe headache posteriorly and aching in nature, and sudden weakness of right hand and right leg characterized by inability to lift right arm and move right leg. He was immediately shifted to ICU and immediate medical care was taken. MRI investigations were done which revealed minimal Subarachnoid Hemorrhage (SAH) in bilateral parietal regions. He recovered from his weakness after around 7-8 hours after onset of weakness. He was then shifted to ward and referred for physiotherapy treatment.

The patient did not have any history of hypertension. He reported to have occlusion of varicose veins by thrombus about a year age which was resolved with allopathy medications for month followed by homeopathy medication for around 7 months. He did not report of having any addictions.

On examination by physiotherapy department, he had intact higher motor functions and speech with retention of memory about the subsequent events that occurred which led to the weakness. On observation he had stoop posture in sitting with protracted shoulders. The cranial nerves and sensation were intact, plantar reflex was up going on right side and deep tendon reflexes were normal (++) bilaterally. Tone was normal but there was some amount of weakness persisting in right lower extremity. Muscles such as hip flexors, abductors, extensors; knee flexors, extensors and dorsiflexors were graded 4 on doing MMT (Manual Muscle Testing) on right side. Balance was affected with fair dynamic balance in standing and good static balance. He could perform transitions such as supine to sit, sit to stand, and walk independently or requiring supervision at times. His baseline measurement of STREAM (Stroke Rehabilitation Assessment of Movement), TIS (Trunk Impairment Scale), Mini-BESTest scales were taken whose values were 56/70, 20/23, 10/28 respectively. He had difficulty in performing activities such as dressing, bathing and toileting activities and required minimal help of bystanders to perform these activities.

INTERVENTION

The therapy aimed at strengthening of weak muscles and balance training to help him to achieve independence in performing activities of daily living.

Muscles such as shoulder flexors, abductors, elbow flexors, hip flexors and abductors, knee flexors and extensors, dorsiflexorswere strengthened by attaching 1 kg weight cuff and moving the limbs in required direction. Weight bearing activities such as partial squats, single limb squats (weight bearing on right side) were done with 10 repetitions in 2 sets.

Balance training involved giving reach outs within base of support and out of base of support in sitting as well as standing. He was made to stand with narrow base of support for 30 seconds initially with eyes closed gradually after 6 days of regular training he could stand for 60 seconds in narrow base of support. Similarly single limb stance initially he could stand only for 15seconds with eyes closed on right leg, progression was made each day, and with training he could maintain balance for 45 seconds after 6 days of training.

Ambulation- He was made to walk on a straight line on 2nd day of reference, gradually the complexities were increased such as head turns during walking, altering speed while walking, taking turns, answering questions simultaneously (training for dual tasks). These activities were targeted so that while performing regular activities patient did not lose balance.

On 5th day of training he was trained with stair climbing initially with one step upwards with one leg followed by other leg on the same step with railings support. Progressively he was made to climb stairs with alternate stepping without railings support.

After 7 days of intervention, scales were again taken to know the amount of improvement with respect to recovery. The STREAM score was 70/70, TIS was 23/23, Mini-BESTest was 21/28 on the day of discharge from hospital.

He was given advised to avoid addictions, in case of similar episode to have emergency consultation to neurologist and regular compliance with neurologist was suggested as he was at high risk of developing similar episode.

RESULTS

After 7 days of physiotherapy treatment the patient could balance while walking, reduced incidences imbalance when distracted while walking. He could perform activities such as dressing, bathing, and toileting independently without supervision of bystanders. He was ready to resume his job within few days and support the family.

DISCUSSIONS

Functional prognosis represents one of the most important and meaningful aspects of outcome of disease. The patient almost recovered from the impairments suffered post stroke.

The patient did not have any history of long standing headache (migraine) indicating internal bleed. There is no history fall or trauma on head causing internal bleed. Symptoms such as severe headache and loss of consciousness in indicative of hemorrhage but pathology causing hemorrhage could not be understood.

SAH has high chances of neuroinflammation causing early brain injury and delayed brain deterioration including cellular and molecular events.4So it was necessary to make the patient aware of possible consequences such as reoccurrence of stroke.

CONCLUSION

The case study reveals that conventional physiotherapy techniques and methods helped the patient achieve his goal of performing activities of daily living independently. The therapist ensured that the patient was counselled about his condition and had chances of further complication and to take appropriate preventive measures.

REFRENCES

1. Smajlović D. Strokes in young adults: epidemiology and prevention. Vascular health and risk management. 2015;11:157.
2. B. S., Boden-Albala, B., Lin, I. F., & Sacco, R. L. (2002). Stroke in the young in the northern Manhattan stroke study. Stroke, 33(12), 2789-2793.
3. Bevan, H., Sharma, K., & Bradley, W. (1990). Stroke in young adults. Stroke, 21(3), 382-386.
4. Zheng VZ, Wong GK. Neuroinflammation responses after subarachnoid hemorrhage: a review. J Clin Neurosci. 2017 Aug 1; 42:7-11.

DOI: 10.5281/zenodo.11181289

COMPREHENSIVE WELLNESS FOR WOMEN

AN INTEGRATED PHYSIOTHERAPY APPROACH

In the dynamic field of women's health, physiotherapy stands as a beacon of holistic care, transcending the traditional confines of physical treatment. This discipline, enriched by insights from 'Obstetrics by Ten Teachers', 'Gynaecology by Ten Teachers', and 'National Guidelines for Quality Obstetrics and Perinatal Care', offers a well-rounded approach to health, particularly for pregnant women and those with gestational diabetes. This article delves into the intricacies of diet and nutrition, exercise, yoga, ergonomics, healthy habits, and personal hygiene, highlighting their collective impact on women's health.

DR. BANSARI MODHA (PT)

MPT IN MUSCULOSKELETAL CONDITIONS
DIPLOMA IN NUTRITION AND HEALTH EDU.
DIPLOMA IN YOGA

Diet and Nutrition : The Foundation of Women's Health

Proper nutrition is a cornerstone of health, especially during the crucial phases of pregnancy and lactation. Women's bodies require a symphony of nutrients to support their own health and that of their developing babies. Key nutrients include calcium, crucial for bone health and a vital component in preventing osteoporosis; iron, essential for combating anemia, especially significant during menstruation and pregnancy; folate, a B-vitamin critical for preventing birth defects and aiding in fetal brain development; and vitamin D, vital for overall health and immune function.

A balanced diet, rich in fruits, vegetables, lean proteins, whole grains, and healthy fats, supports not just physical health, but also mental well-being. For those with specific conditions like gestational diabetes, diet plays a therapeutic role. A low-glycemic diet rich in fiber, lean protein, and healthy fats helps regulate blood sugar levels, ensuring both maternal and fetal health.

Exercise and Yoga: Enhancing Physical and Mental Well-being

Physical activity is a pillar of health, offering benefits that extend beyond weight management. Cardiovascular exercises, such as walking, swimming, or cycling, improve heart health and enhance circulatory efficiency. Strength training, often overlooked, is crucial for maintaining muscle mass and bone density, piarticularly impolrtant in preventing osteoporosis.

Yoga, with its emphasis on flexibility, balance, and mental focus, offers a unique set of benefits. During pregnancy, yoga can alleviate common discomforts like back pain, enhance circulation, and prepare the body for childbirth through focused breathing and relaxation techniques. Moreover, the mental benefits of yoga, including stress reduction and mindfulness, contribute significantly to overall well-being.

Ergonomic and Hygiene Practices for Optimal Health :

Ergonomics, particularly in the context of women's health, involves designing work and home environments that support physical well-being. Proper ergonomic practices reduce the risk of musculoskeletal disorders, a common ailment among women due to their diverse roles and responsibilities. During pregnancy, ergonomic adaptations are essential to accommodate the changing body and prevent strain and injury.

In addition to ergonomics, personal hygiene plays a crucial role in women's health. Regular bathing, proper genital care, and appropriate menstrual hygiene practices are essential for preventing infections and maintaining overall well-being. This is particularly important during menstruation and pregnancy, when hormonal changes can affect the body's susceptibility to infections.

Healthy Habits for a Balanced Life :

Healthy habits form the bedrock of a balanced lifestyle. Quality sleep is essential for physical repair and mental clarity. Relaxation techniques and effective stress management are as important as physical health practices. Mental well-being, fostered through mindfulness and meditation, has a profound impact on overall health.

Hydration is another key aspect of healthy living. Drinking adequate water daily is crucial for bodily functions and can prevent common issues like urinary tract infections, which are more prevalent in women. Avoiding harmful habits such as smoking and excessive alcohol consumption is vital for long-term health and well-being.

In conclusion, the integration of physiotherapy with diet, exercise, ergonomics, healthy habits, and personal hygiene offers a comprehensive framework for enhancing women's health. This is especially important during transformative phases such as pregnancy and postpartum. The application of evidence-based practices, informed by authoritative sources, enables physiotherapists to make significant contributions to women's health, guiding them toward healthier, more balanced lives.

By understanding and addressing the unique needs of women at different life stages, physiotherapy can play a pivotal role in not just treating but also preventing a range of health issues. This proactive, holistic approach is the key to empowering women to take charge of their health and well-being.

DOI: 10.5281/zenodo.11181248

INCIDENCE OF LOW BACK PAIN AND IT'S CORRELATION WITH LOWER CROSS SYNDROME AND FLAT FOOT IN PHYSIOTHERAPY STUDENTS

DR. PRIYAL MUNGRA(PT)

Bachelors of Physiotherapy

DR. PRIYANSHI KUNDARIYA(PT)

Bachelors of Physiotherapy

DR. AKTA BHALARA

BPT,MPT(Neuro) , PhD
Lecturer in physiotherapy,
Government physiotherapy college,
Jamnagar

INTRODUCTION:

LOWER CROSSED SYNDROME

Lower crossed syndrome (LCS) is a musculoskeletal imbalance characterized by specific patterns of muscle weakness and tightness that crosses between the dorsal and ventral sides of the body. It is also known as a pelvic crossed syndrome. In lower crossed syndrome, the thoraco-lumber extensors are tight in dorsal side and there are also tightness in illiopsoas on the other side. While there are weakness in abdominals muscles and gluteus maximus muscles.

The result of chain reaction that the pelvis tips forward on the frontal plane, flexing the hip joints and producing lumber lordosis and stress at L5-S1 with pain and irritation. A further stress commonly appears in the sagittal plane in which quadratus lumborum tightness and gluteus maximus weaken.

When this 'lateral corset' becomes unstable, the pelvis is held in increased elevation, accentuated when walking, resulting in L5-S1 stress in the sagittal plane. One result is low-back pain. The combined stresses described produce instability at the lumbodorsal junction, an unstable transition point at best.

Failure of coactivation due to persistent tonic activity results in faulty neurodevelopment of the motor system. This eventually promoting lower crossed syndromes.

FLATFOOT

Flatfoot deformity defined by the loss of medial longitudinal arch of the foot where it contacts or nearly contacts the ground. There are two types of flatfoot deformity. The first type is rigid or congenital flatfoot and second type is acquired or flexible flatfoot.

Flexible flatfoot may result from tibial or femoral torsion, coxa vara, a defect in the subtalar joint, or injury to the posterior tibial tendon.

The need of the study is to evaluate the incidence low back pain in Physiotherapy students. To evaluate incidence of lower cross syndrome and flat foot in low back pain subjects

DESIGN:

A total **234 students** both girls and boys between age group **18 to 24 years** were screened by self administered questionnaire form, from which **82 students** having low back pain are taken into consideration.

Each student were underwent for assessment of tightness of illopsoas with use of thomas test, tightness of errector spine (LUMBER FLEXION ROM) with use of modified modified schober's test , strenght of abdominals and gluteus maximus with use of manual muscle testing, flatffot with using of nevicular drop test.

METHODS:

MEASUREMENT OF EERECTOR SPINE THIGHTNESS:

Modified Modified schober's test: Ask the subject to standing postion. Place a first mark at a middline point on the sacrum that is level with the posterior superior illiac spine(this mark will be over the spinous process of S2). Make a second mark 15 cm above the middline sacral mark. Align the tape measure between the superior and inferior marks. Ask the subject to bend forward as far as possible while keeping the knees straight. Maintain the tape measure against the individual's back during the motion, but allow the tape measure to unwind to accommodate the motion. At the end of flexion ROM, note the distance between the two marks.(1)

MEASUREMENT OF ABDOMINAL MUSCLE STRENGTH:

The subject were placed in supine lying position with legs straight and fingertips lightly touching the back of the head (Grade 5) , arm crossed over the chest (Grade 4), arms outstretched in full extension above the plane of the body (Grade 3). For Grade 2 ,1 and 0 subject were placed in supine lying position with arm at sides. Knees flexed. Therapist stand at side of the table at level of patient's chest to ascertain whether scapular clear table during test. Then ask the subject to lift the shoulders, and back off table, keeping the chin pointed to cilling. Patient flexes trunk through range of motion, lifting the trunk until scapulae clear the table. IF the patient has weak hip flexors, therapist should stabilize the pelvis by leaning across the patient on the forearms.(2)

MEASUREMENT OF GLUTEUS MAXIMUS STRENGTH:

The subject is ask to lie in prone with knee flexed 90 degrees, hip abducted and externally rotated. Therapist stand at leval of the pelvis on the side to be tested. Ask the subject to lift the thigh off the plinth as high as possible, while bending the knee. Place the hand for resistance over the posterior thigh just above the knee. The opposite hand may stabilize or maintain the alignment of the pelvis. Resistance is given in a straight downward direction. According to MRC grading the strength of gluteus maximus was graded.(2)

MEASUREMENT OF ILLIOPSOAS MUSCLE TIGHTNESS:

Ask the subject to lies supine. The examiner flexes one of the subject's hips, bringing the knee to chest to flatten out the lumber spine and to stabilize the pelvis. The subject holds the flexed hips against the chest. If the is a no tightness, the hip being tested (The straight leg) remains on the examining table. If the tightness is present, the subject's straight leg raises off the table and muscle stretch end feel will be felt. If the lower limb is pushed down onto the table, the subject may exhibit an increased lordosis; again, the result indicate the positive test.(3)

MEASUREMENT OF FLATFOOT:

Ask the subject to relax sitting position. The examiner first measure the height of the navicular from the floor in the neutral talus position using the most prominant part of the navicular tuberosity and then measure the height of the navicular in normal relaxed standing. The difference is called navicular drop. Any measurement greater than 10 mm is considered abnormal.(3)

RESULT:

The study concludes that there is 35.04% students of physiotherapy college having low back pain. Out of that 73.17% students having a incidence of lower crossed syndrome and 6.09% students having a incidence of flatfoot.

The study concludes that there is a 5.98% students of physiotherapy college having low back pain since last one month. Out of that 78.57% students having lower crossed syndrome and 7.14% students having incidence of flatfoot .

REFERENCES :

(1) - Cynthia C. Norkin, D. Joyce White (Fifth Edition)
(2) - Daniels and Worthingham's (First South Asia Edition)
(3) - David J. Magee (Sixth Edition)

DOI: 10.5281/zenodo.11181248

PUBLISH YOUR ARTICLE/CASE STUDY IN PHYSIOTRENDS

- FREE PUBLICATION
- GET DOI FOR EACH ARTICLE
- GET CERTIFICATE OF PUBLICATION

Website

Major Indexing

Google

MAGZTER
DIGITAL MAGAZINE STORE
TAP · READ · ENJOY

zenodo

OpenAIRE

Our International Association

PHYSIOTHERAPY ONLINE

SmartPT Academy

Rate Us

Contact Us!

+91 79843 77793
physiotrendsmagazine@gmail.com