SWAMI VIVEKANANDA UNIVERSITY

NEWSLETTER

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Theme:- "Holistic Healing : Integrating Mind, Body & Movements"

DEPARTMENT OF PHYSIOTHERAPY
SCHOOL OF ALLIED HEALTH SCIENCES

About The University

Swami Vivekananda University was established in the year 2019 by the Swami Vivekananda Group of Institutions (RERF), a trusted name in the education sector of West Bengal. Although young in years, the University has already made impressive progress toward becoming a reputed centre of quality higher education. RERF, the parent body, stands as one of the leading educational conglomerates in the region with over 28 well-established institutions. These institutions are dedicated to providing demand-driven and industry-oriented education across a wide spectrum of disciplines including Pure and Applied Sciences, Engineering, Technology, Management, Agriculture, Life Science, Allied Health Sciences, Humanities & Social Sciences, and Journalism & Mass Communication. The Group focuses on high-quality education at undergraduate, postgraduate, and doctoral levels, nurturing professionals who meet evolving global standards.

Swami Vivekananda University (SVU) was founded with the profound mission of bringing to life Swami Vivekananda's vision of education—one that shapes not only intellectual capabilities but builds strong character, confidence, ethics, and humanity. His educational philosophy emphasized blending India's rich cultural and spiritual legacy—rooted in values such as shraddha (faith), devotion to truth, and sacredness of knowledge—with the best of Western scientific temperament, innovation, rationality, and technological advancement. In alignment with this ideology, every academic program, extracurricular initiative, and institutional effort at SVU is designed to promote mankind's holistic development, preparing students to become responsible global citizens with a strong sense of purpose.

*The Hon'ble Chairman's guiding principles—**Excellence, Innovation, and Entrepreneurship**—drive SVU toward continuous growth and transformation. New age educational initiatives are being implemented to enhance academic quality, expand research contributions, and develop collaborations with industry and global institutions. The University gives equal importance to personality development, leadership enhancement, experiential learning, and real-world problem solving. With a strong focus on outcome-based education, SVU aims to empower students to become innovators, entrepreneurs, skilled professionals, and change-makers in society.*

The University was established under Act No. XV of 2019 of the West Bengal State Legislature and officially commenced operation from 5th December 2019. Within just a year, it was enlisted by the University Grants Commission (UGC) as a State Private University in 2020. SVU has ensured continuous internal monitoring and quality self-compliance through its Internal Quality Assurance Cell (IQAC), signifying its strong commitment to academic excellence, accreditation readiness, and institutional transparency from the very beginning.

Strategically located in the lush and serene township of Barrackpore, the University campus is spread across 12 acres of greenery, providing a refreshing environment that supports learning, creativity, and overall well-being. The campus enjoys excellent tri-modal connectivity—rail, road, and air—with the Kolkata Airport just 15 km away, and key access points like Barrackpore-Barasat junction (Wireless More) and Kalyani Expressway situated nearby. Close proximity to Barrackpore Railway Station further enhances accessibility for students commuting from various parts of the state.

*Despite being in its early years, the University has already achieved a robust student community of over 2000+ learners, including around **150 active research scholars**, demonstrating its rapidly growing academic reputation. SVU offers a learner-centric atmosphere supported by advanced infrastructure and modern facilities. The academic blocks comprise fully equipped laboratories, smart classrooms, seminar halls, auditoriums, a technologically advanced Computer Centre, Central Library, Conference Halls, and designated research spaces. The campus also supports a variety of extracurricular and student welfare facilities including a well-maintained gymnasium, medical support, campus store, clean and hygienic canteen services, and complete Wi-Fi connectivity—enabling a digitally empowered learning ecosystem.*

SVU strongly believes that higher education is not just about academics but shaping personalities and enabling lifelong success. Therefore, the University promotes a culture of active learning through practical sessions, field training, industrial internships, workshops, guest lectures, and skill development programs. Alongside academic rigor, SVU emphasizes co-curricular and extracurricular involvement—arts, sports, cultural celebrations, community outreach, and innovation-driven activities—ensuring that students evolve into adaptable and confident individuals.

Research, innovation, and entrepreneurship are the pillars of SVU's developmental roadmap. The University encourages a strong research culture through funded projects, research labs, conferences, and collaborations. Students are motivated to engage in discovery, creativity, and real-world applications of knowledge. Entrepreneurship development cells, incubation support, and mentorship opportunities ensure that innovative ideas from young minds can transform into sustainable ventures and contribute to the nation's economic advancement.

Swami Vivekananda University remains deeply rooted in the belief that every student has the potential to rise and excel. Therefore, equal attention is given to inclusivity, ethics, discipline, and academic freedom. Faculty members at SVU are highly qualified, student-friendly, and dedicated to guiding learners through both academic challenges and personal growth. The faculty continuously upgrade their knowledge through professional development programs, ensuring that the University remains aligned with global educational standards.

*Looking ahead, SVU aims to expand its global visibility through international collaborations, advanced research centres, and industry partnerships that enrich student exposure and career opportunities. The University's long-term mission is to earn recognition as a **University of Excellence**—one that leads innovation, promotes value-based education, and creates leaders who contribute meaningfully to society.*

Swami Vivekananda said, "Education is the manifestation of the perfection already in man." Guided by this philosophy, Swami Vivekananda University is committed to inspiring students to discover that inner perfection, empowering them to become enlightened individuals ready to serve the world with knowledge, kindness, courage, and purpose.

From the Vice Chancellor's Desk

It is indeed a great privilege and honour to be at the forefront of an emerging and rapidly progressing institution—our ***Swami Vivekananda University (SVU)****. Being a part of this illustrious journey fills us with immense pride and satisfaction. Since its inception in 2020, SVU has consistently demonstrated a strong commitment toward excellence in Higher Education, Research, Innovation, and Community Extension activities. With the visionary guidance and strong leadership of our Hon'ble Chancellor, and the relentless dedication of our esteemed colleagues—our University has been able to build a strong academic foundation in a remarkably short span of time.*

SVU today offers a wide spectrum of ***Undergraduate, Postgraduate, and Doctoral programs*** *across various disciplines including Engineering, Management, Agriculture, Computer Science, Life Sciences, Allied Health Sciences, Humanities, and Social Sciences. Each of these programs is carefully designed to align with global standards, industry needs, and future technological advancements. Our objective has always been to nurture competent, responsible, and socially conscious professionals who will shape the future of our nation and the world.*

Research remains at the very heart of our institutional growth. At SVU, research programs are being strengthened across all disciplines, promoting a culture of innovation and knowledge creation. Total commitment from faculty, scholars, and students is essential to achieve our research goals, and I am proud to note that SVU is steadily progressing toward becoming a centre of excellence in multidisciplinary research.

As we envision the future, there is no doubt that ***knowledge and technology*** *will continue to be the most powerful resources for development. The world is evolving rapidly, and higher education institutions must not only adapt to this change but must play a crucial role in leading societal transformation. Therefore, it becomes our paramount responsibility to develop ideas, innovations, and human resources that will benefit society at large. We aim to impart education that is forward-thinking, skill-based, and capable of addressing global challenges.*

To keep pace with the emerging trends, our emphasis is also on establishing strong collaborations and alliances—whether with national and international universities, government bodies, research organizations, or industrial sectors. These partnerships will foster opportunities for joint research, knowledge exchange, internships, and real-world exposure for our students. It is both our moral and academic obligation to ensure that SVU becomes a trusted hub for academic brilliance, impactful research, and meaningful extension activities.

The progress SVU has witnessed so far is not the result of a single entity—it is the collective outcome of the unwavering dedication, teamwork, and concerted efforts of every stakeholder—faculty, administrative

staff, students, alumni, governing bodies, and well-wishers. In the vast, fast-changing educational scenario of today, a university must be adaptable, resilient, and future-oriented. I firmly believe that SVU embodies these qualities and is continuously evolving to meet the highest standards of educational excellence.

What truly strengthens our institution is its ***diversity****—diversity in talent, culture, ideas, perspectives, and ambitions. The richness of this diversity enables us to build a vibrant academic environment that inspires creativity, critical thinking, and leadership. Every member of the SVU community contributes uniquely to the growth story of our University, and together, we move ahead with a shared vision of progress and purpose.*

With many milestones yet to be achieved and countless opportunities ahead, let us continue to shoulder our responsibilities with dedication and enthusiasm. I encourage each one of us to uphold the core values of discipline, innovation, compassion, and academic integrity—values that symbolize the spirit of SVU.

Let us join hands and move forward with unwavering determination to take this institution to even ***greater heights of recognition, excellence, and societal impact****. The journey ahead is promising, and together we shall make SVU a beacon of knowledge and a pioneer of transformative education.*

"Many more miles to go—but with unity, vision, and collective effort, success is inevitable."

From the Chief Operating Officer's Desk

It is a great privilege and honour to be a part of the mission to make "Swami Vivekananda University" a name to reckon within the academic fraternity by giving a strong impetus to creating an environment of knowledge, application and holistically inspiring youth to become leaders of tomorrow. I believe that the rigours of the contemporary world will require knowledgeable professionals who could withstand the dynamics of the fast-changing world. It is a great privilege and honour to be a part of the mission to make "Swami Vivekananda University" a name to reckon within the academic fraternity by giving a strong impetus to creating an environment of knowledge, application and holistically inspiring youth to become leaders of tomorrow. I believe that the rigours of the contemporary world will require knowledgeable professionals who could withstand the dynamics of the fast- changing world. Hence "Making a Difference in the Life of Every Student" is the Priority of my administration. We look forward to a deep engagement with Students, Industry, Faculty, and Community to position Andhra university as the national leader in delivering value to its students and offering a transformative educational and life experience.

The Vice Chancellor office works collaboratively across the University Constituent and affiliated Colleges to ensure that every student has the best possible education and experience. In the journey, there will be tough times and there will be easier ones, but we shall work hard with no regrets, and be victorious. The University faculty are here to be the mentors and facilitators to help the students in all round progress. The parents are here to understand the strength and weaknesses of their wards and encourage them, in choosing a study of their passion. The students are here to understand that the rules and regulations in the university are put in a place to help them in achieving dreams.

There must be an aspiration to excel and serve the society, and hence there must be measuring standards. We the faculty and students as an University must excel and set standards to impact society and future generations.

Let's move ahead with a clear line of action to excel in academics, fortify our research initiatives through quality publications, strengthened industry – institute interactions, product development, Start-Up ventures and honestly contributing for the upliftment and growth of people and humanity at large.

Our challenge is to help to generate ideas that will benefit society, and to educate and train people to work in fields where they will be valued both for their knowledge, and for their ability to research, communicate and solve problems. I offer my best wishes to all students, faculty and staff to grow and excel in this challenging and competitive era and the pinnacle of success.

From the Registrar's Desk

We have pleasure in welcoming you to Swami Vivekananda University, Barrackpore. The University is striving hard to have qualitative improvement in the level of education, environment and economy of this region. The university has a visionary mission to contribute in multidimensional growth and development of the region in general and holistic development of the students in particular. We hope that the inspiring students, under the guidance of dedicated teachers and a far-sighted leadership of the top administration would lead this University to a coveted and recognized position in the galaxy of higher education in the country.

Swami Vivekananda University's aspiration is to be a world class centre of excellence in training, research and innovation in cutting edge technologies. We are in the sincere process of creating a positive image whereby our name becomes synonymous with excellence, innovation, honour, integrity and outstanding quality and service. Always we will keep our vision goal focused ensuring to reach greater heights in the days ahead. As we embark on developing the University, all the dedicated personnel at SVU need to be unswerving in defending our vision. We shall focus on the individuals' strengths and use their strengths in a very goal-directed niche within our institution.

Our primary objective is to enrich and support the individual in his/her endeavour towards the attainment of knowledge and wisdom to apply that knowledge in coherence with the aims and ambitions of the individual in particular and for the greater good of human kind in general. Industries and renowned institutions are always welcome to collaborate for R & D activities with faculty members and research scholars. As regards to the students who are our main stakeholders, we look forward to a healthy working relationship where dialogue becomes the pillar of our understanding. We remain open to your deserved needs and not demands and our focus will be to make you all-round graduates ready for the market and responsible citizens of this great country. I assure you best academic, administrative and research atmosphere in the campus.

About The Department

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Physiotherapy is an important branch of rehabilitative medicine that focuses on restoring, maintaining, and enhancing physical function and movement throughout the lifespan. Physiotherapists work with individuals affected by injury, illness, disability, or age-related conditions, aiming to improve mobility, reduce pain, and enhance independence. By using detailed assessment, provisional diagnosis, therapeutic exercises, manual techniques, electrotherapy, and education, physiotherapists play a vital role in promoting health and overall well-being.

With the growing need for rehabilitation services in today's world—due to lifestyle changes, rising chronic diseases, sports and work-related injuries, and increased life expectancy—qualified physiotherapy professionals are in high demand. Physiotherapy not only supports recovery but also helps prevent future complications, enabling individuals to lead active and productive lives.

Recognizing the importance of skilled rehabilitation experts, the ***Department of Physiotherapy at Swami Vivekananda University*** *was established in* ***2020****. The* ***Bachelor of Physiotherapy (BPT)*** *program aims to provide students with strong theoretical knowledge supported by hands-on clinical training. Students are exposed to hospitals, community centers, and advanced physiotherapy laboratories equipped with modern treatment technologies.*

To expand learning and research opportunities, the ***Master of Physiotherapy (MPT)*** *program was introduced in* ***2024****. This specialized program focuses on advanced therapeutic practice, clinical reasoning, and evidence-based treatment approaches, preparing graduates for leadership roles in healthcare and academics.*

The department is driven by a team of dedicated and experienced faculty members who prioritize student development, professional ethics, and excellence in patient care. Our mission is to develop competent, compassionate physiotherapists who contribute meaningfully to improving the health and quality of life of individuals and communities.

From the HOD's Desk

Dr. Sourav Mitra (PT)
Assistant Professor & HOD
Department of Physiotherapy
MPT Neurology

Welcome to the Department of Physiotherapy at Swami Vivekananda University. Our department firmly believes that education is a powerful tool that shapes individuals into capable professionals and responsible members of society. We strive to create an environment where students are encouraged to explore their potential, pursue academic excellence, and engage in continuous personal development. With the unwavering support of our experienced faculty members, strong institutional vision, and well-equipped infrastructure, we aim to foster dedication, perseverance, and empathy among our students—qualities essential for success in the healthcare profession.

Physiotherapy plays a vital role in the modern healthcare system. As a specialized discipline of rehabilitative medicine, it focuses on restoring, maintaining, and enhancing physical function and mobility. Physiotherapists work closely with patients to manage pain, improve movement, and enhance their ability to participate in daily activities. Through scientific assessment, provisional diagnosis, therapeutic exercises, manual therapy, electrotherapy, and preventive care, they help individuals regain independence and improve their overall quality of life.

Beyond treating health conditions, physiotherapists significantly contribute to the prevention of disability, reduction in long-term medication dependency, and avoidance of invasive procedures such as surgeries. Their role spans across hospitals, sports rehabilitation centres, community health programs, geriatric care, occupational health, and wellness promotion—making them a key asset in society's pursuit of better health.

The growing demand for rehabilitation services emphasizes the need for highly trained and compassionate physiotherapy professionals. At our department, we remain committed to providing a comprehensive curriculum that integrates theoretical knowledge with extensive clinical exposure. We encourage students to cultivate critical thinking, professional ethics, and evidence-based practice, ensuring their readiness for diverse healthcare challenges.

We are proud of our achievements and excited about the promising path ahead. We warmly welcome all aspiring students to join our department and contribute to the advancement of physiotherapy. Together, let us strive to serve humanity, promote well-being, and uphold the values of this noble profession.

Faculty Members of Physiotherapy Department

Dr. Sourav Mitra (PT)
Assistant Professor & HOD,
Department of Physiotherapy
MPT Neurology

Dr. Sunayana Ghosh Dostider (PT)
Assistant Professor
Department of Physiotherapy
MPT Orthopaedics

Dr. Sanhita Bose (PT)
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Dr. Raveena Kothari (PT)
Assistant Professor
Department of Physiotherapy
MPT Cardiopulmonary

Dr. Gourab Jyoti Roy (PT)
Assistant Professor
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Guest Faculty Members

Dr. Akhilesh Humnekar
Assistant Professor
AIIMS Kalyani
MBBS, MS, MCH (Burns & Plastic Surgery)

Dr. Saikat Roy
Assistant Professor
College of Medicine and JNM Hospital Kalyani
PhD Anatomy

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Dr. Satyen Bhattacharya (PT)
External Expert from Academia

Associate Professor, Burdwan Institute of Medical $ Life Sciences

Dr. Anwesh Prodhan (PT)
External Expert from Academia

Associate Professor, Nopany Institute of Healthcare Studies

Dr. Shazad Anwar (PT)
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Dr. Amartya Mallick (PT)
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Dr. Sampurna Sett (PT)
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Chief Physiotherapist Woodlands Hospital

Dr. Subhanjan Das (PT)
External Expert from Academia

Consultant Physiotherapist Ex- Associate Professor, Garden City University

Editorial Note

Theme – Holistic Healing: Integrating Mind, Body, and Movement

Introduction *- Holistic healing is a comprehensive approach to health that emphasizes the deep and inseparable connection between the mind, body, and movement for achieving optimal well-being. Within the field of physiotherapy, this approach shifts the focus from merely treating symptoms or isolated physical impairments to understanding each individual as a complete human being with unique experiences, emotions, and lifestyle influences. Healing, therefore, becomes a journey that addresses physical function, mental resilience, and emotional balance together.*

Movement forms the foundation of physiotherapy. But movement is not just mechanical exercise—it is a form of self-expression, communication, and empowerment. When patients move consciously and purposefully, their bodies respond more effectively, promoting improved strength, flexibility, coordination, and posture. Therapists incorporate mindful movement practices, therapeutic exercise, balance training, and motor relearning to restore mobility and help individuals return to meaningful daily activities.

Equally crucial is the role of the mind in recovery. Psychological factors such as fear, stress, anxiety, or lack of motivation can slow down progress and amplify pain perception. Holistic physiotherapy addresses these aspects through patient education, motivational strategies, relaxation and breathing techniques, and building a trusting therapist-patient relationship. By creating a positive mental environment, individuals gain confidence, feel supported, and actively participate in their own healing.

Lifestyle balance forms the third pillar of holistic care. Proper sleep, nutrition, hydration, leisure activities, and social interactions contribute to the body's natural healing capacity. Physiotherapists guide patients toward healthier routines that complement therapeutic interventions and prevent future injuries.

The essence of holistic healing lies in empowering individuals—not just to recover—but to thrive. It encourages self-awareness, resilience, independence, and long-term health rather than temporary relief. When the mind is calm, the body strong, and movement purposeful, the outcome is a fuller, healthier life.

Holistic healing, through the integration of mind, body, and movement, represents the true spirit of modern physiotherapy—where care is patient-centered, compassionate, and designed to enhance overall quality of life.

Holistic Healing as a Foundation for Contemporary Physiotherapy

Dr. Sourav Mitra (PT)
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Dr. Sourav Mitra (PT)

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Holistic healing in physiotherapy embodies an integrative philosophy that views the individual as a complex, interconnected system in which the mind, body, and movement patterns continuously influence one another. It emphasizes that optimal recovery and long-term resilience cannot be achieved through isolated physical interventions alone but must arise from a comprehensive understanding of how emotional health, cognitive beliefs, stress responses, lifestyle habits, and physiological processes interact to shape pain, function, and overall well-being.

By adopting the biopsychosocial model, holistic physiotherapy acknowledges that musculoskeletal pain and dysfunction are rarely the product of a single mechanical issue. Instead, they are influenced by factors such as chronic stress, maladaptive movement habits, sleep quality, breathing patterns, physical inactivity, past experiences with injury, and an individual's perception of their own body. These factors can amplify pain sensitivity, disrupt neuromuscular control, and impede healing, making it essential for therapy to address not only tissues and joints but also the nervous system, emotional regulation, and behavioural patterns.

Physiotherapists who embrace a holistic approach often begin by educating patients about the nature of pain. They emphasize that pain is a protective output of the brain influenced by context, beliefs, expectations, and sensory input rather than a direct measure of tissue damage. This empowers individuals to reinterpret their symptoms with less fear and catastrophizing, fostering a sense of agency that is crucial for recovery.

Movement becomes a central healing tool because it influences nearly every bodily system—enhancing circulation, stimulating lymphatic flow, regulating autonomic nervous system activity, and promoting neuroplasticity. Holistic physiotherapy elevates movement beyond traditional exercise prescriptions by integrating mindful, purposeful practices that cultivate body awareness, improve motor control, and harmonize breathing with motion. These methods help individuals reconnect with their bodies in a way that reduces tension and supports natural, efficient movement patterns.

Practices drawn from yoga, Pilates, tai chi, somatic experiencing, Feldenkrais principles, and mobility-flow training are often adapted into physiotherapy sessions. These techniques enable patients to explore fluid movement sequences that enhance proprioception, reduce guarding, and retrain dysfunctional patterns at a pace that honors their physical and emotional readiness. Meanwhile, breathwork techniques—such as diaphragmatic breathing, box breathing, or paced respiration—help downregulate sympathetic nervous system activity, reduce muscle tone in chronically tense areas, and improve core stability through better intra-

abdominal pressure management, demonstrating the profound influence of breath on posture, pain, and movement quality.

Manual therapy continues to play an important role, yet it is applied with a holistic lens that recognizes its ability not only to mobilize tissues and joints but also to facilitate relaxation, enhance sensory input to the nervous system, and build therapeutic trust. Techniques like myofascial release, craniosacral therapy, visceral manipulation, soft-tissue mobilization, and gentle joint mobilizations become gateways to improved mobility and reduced pain when combined with patient-centered communication and mindful movement training.

Holistic physiotherapists also focus on lifestyle factors that significantly influence healing trajectories. Sleep deprivation increases pain sensitivity and impairs tissue repair, poor nutrition contributes to systemic inflammation, and chronic psychological stress can manifest physically as muscle tightness, shallow breathing, and heightened pain reactivity. Therefore, education on sleep hygiene, stress management, hydration, and balanced eating becomes a natural extension of care. Clinicians may incorporate goal-setting, grounding techniques, guided imagery, or graded exposure to movement to help patients overcome fear-avoidance behaviors and gradually return to meaningful activities.

Body-awareness training—through practices like body scanning, interoceptive exercises, and slow controlled motion—helps patients recognize subtle cues such as tension, fatigue, or emotional triggers that precede physical symptoms. This allows them to intervene early through posture adjustments, breathing techniques, or gentle movement before discomfort escalates, fostering self-regulation and long-term resilience.

By weaving together these interconnected strategies, holistic physiotherapy shifts the therapeutic process from a passive, practitioner-driven experience to an empowering, collaborative journey. Patients become active participants, learning to understand their bodies, challenge unhelpful beliefs, cultivate nervous system balance, and develop sustainable habits that support lifelong health.

As a result, patients experience not only reduced pain and improved function but also enhanced emotional stability, greater self-awareness, and a deeper sense of embodiment. Ultimately, they discover that healing is not merely the resolution of symptoms but the reconnection of mind, body, and movement into a harmonious system that supports vitality, adaptability, and an overall higher quality of life.

In this way, holistic healing in physiotherapy represents a transformative evolution of traditional practice—rooted in science yet enriched by compassion, mindfulness, and an appreciation of the human experience—offering a path to recovery that honors the full complexity of what it means to be well.

Inside-Out Healing: The Physiotherapy Perspective on Mindful Movement

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Physiotherapy has evolved significantly over the past decade, increasingly shifting toward a holistic model of care that recognises the deep interconnection between the mind, body, and movement. Instead of viewing pain or dysfunction as an isolated physical issue, modern physiotherapy acknowledges that a person's psychological state, lifestyle habits, and environmental context play equally important roles in healing. This broader perspective, rooted in the biopsychosocial model, enables physiotherapists to understand not just what hurts, but why it hurts, and how the patient's overall life patterns influence their condition. By treating the individual as a whole rather than focusing solely on the affected tissues, holistic physiotherapy opens the door to more complete and sustainable recovery.

The influence of the mind on physical healing is profound. Emotional stress, fear, anxiety, and negative beliefs about pain can intensify symptoms, slow recovery, and reduce a patient's willingness to engage in rehabilitative exercises. Many chronic pain conditions such as persistent low back pain or neck pain are shaped as much by psychological factors as by physical impairments. Patients who fear movement may avoid activity altogether, worsening stiffness and weakness. Others may catastrophise pain, believing it signals severe damage even when tissues are healing. Low self-confidence can further reduce adherence to therapy. To address this invisible layer of healing, physiotherapists integrate techniques such as pain education, mindfulness, breathing exercises, relaxation strategies, and collaborative goal-setting. These methods help calm the nervous system, shift unhelpful beliefs, and empower patients with the confidence needed for active participation in their recovery.

While the mind plays a vital role, the body remains the foundation of physiotherapy practice. Restoring physical strength, flexibility, joint mobility, muscle activation, posture, balance, and cardiovascular endurance is essential for functional improvement. Evidence-based interventions such as therapeutic exercise, manual therapy, soft-tissue mobilisation, and electrotherapy are still key components of care, but within a holistic framework, these techniques are customised not only to address the injury but also to suit the patient's lifestyle, motivations, and emotional readiness. Holistic physiotherapy also emphasises lifestyle factors that influence healing, such as adequate sleep, balanced nutrition, hydration, ergonomic postures, and stress reduction. These habits create an internal environment that supports tissue recovery and long-term health.

Movement acts as the bridge connecting the mind and body. It reflects both the physical capacity of tissues and the psychological readiness of the individual. Movement is often described as medicine in physiotherapy because it enhances blood flow, supports tissue repair, releases endorphins that reduce pain, improves mood, and restores functional independence. Furthermore, movement builds resilience and confidence, helping patients overcome fear and regain trust in their bodies. Holistic physiotherapy incorporates diverse movement-based practices such as yoga-inspired routines, Pilates for core and postural control, Tai Chi for

balance and breath integration, functional training that mirrors daily tasks, and mindful movement approaches that improve body awareness and reduce tension. These methods help harmonise muscle activity with nervous system regulation, allowing patients to experience movement not as a threat but as a therapeutic ally.

Integrating mind, body, and movement into physiotherapy practice involves looking beyond symptoms to understand the whole person. A holistic physiotherapist conducts a comprehensive assessment that explores physical impairments, emotional influences, lifestyle behaviours, and environmental factors. Treatment plans combine personalised exercise programs, education about pain and body mechanics, breath and relaxation training, gradual exposure to movement, and lifestyle guidance. When necessary, physiotherapists collaborate with psychologists, nutritionists, or physicians to address broader health needs. This approach ensures that each component of a person's experience—mental, physical, and behavioural—is supported throughout the healing process.

The benefits of holistic healing in physiotherapy are wide-ranging. Patients often recover more fully and more quickly because treatment addresses the root causes of their condition rather than surface-level symptoms. They gain better control over pain, improve their emotional resilience, and reduce their risk of chronic or recurrent problems. By learning to understand and listen to their bodies, patients build self-confidence and adopt healthier habits that support long-term well-being. Instead of short-term symptom relief, holistic physiotherapy encourages lifelong engagement in movement, mindfulness, and balanced living.

In conclusion, holistic healing—which unites mind, body, and movement—has become central to modern physiotherapy. By acknowledging psychological influences, supporting physical restoration, and emphasising movement as both a therapeutic and empowering tool, physiotherapists can guide patients toward meaningful and lasting recovery. This integrated approach not only aids in healing injuries but also promotes emotional balance, functional independence, and overall quality of life. In an era dominated by stress, sedentary routines, and chronic pain, holistic physiotherapy offers a powerful pathway to comprehensive wellness and resilience.

The Role of Breathwork in Physiotherapy: A Neurophysiological Perspective Unlocking the Therapeutic Power of Breathing in Rehabilitation

Ms. Sanchita Singh
BPT 6th Semester (Batch 2022)

Ms. Sanchita Singh, BPT 6th Semester (Batch 2022)

Neurophysiological Foundations of Breathwork

The vagus nerve sits at the center of breathwork's therapeutic effects, providing a major parasympathetic pathway between the viscera and the brain. Approximately four-fifths of its fibres are afferent, carrying sensory information from the heart, lungs, and abdominal organs to brainstem nuclei and onward to limbic and prefrontal regions that regulate emotion and cognition.

Breathing and vagal activity are tightly coupled: vagal output decreases during inspiration and increases during expiration, and slow, prolonged exhalations amplify this parasympathetic influence. At breathing frequencies around 6 breaths per minute (approximately 0.1 Hz), cardiorespiratory oscillations become synchronized, producing a "resonance" state that maximizes vagally mediated heart rate variability and baroreflex sensitivity.

Beyond the brainstem, respiration modulates neural oscillations and network dynamics in higher brain areas. Experimental and imaging studies show that controlled breathing can alter activity in the amygdala, insula, and medial prefrontal cortex, facilitating top-down regulation of fear, attention, and interoception—key processes for pain and stress management in rehabilitation.

Autonomic Regulation, Stress, and Mental Health

Slow, paced breathing is one of the most robust non-invasive methods for increasing cardiac vagal tone and heart rate variability, both markers of flexible autonomic regulation and resilience. Systematic and narrative reviews over the last five years show that structured breathing practices reduce physiological arousal, lower perceived stress, and improve mood in both healthy and clinical populations.

Meta-analytic evidence suggests that breathwork protocols are most effective when practiced regularly, typically for at least 5 minutes per session over several weeks, and when they emphasize slow nasal breathing with a relatively longer exhalation phase. These autonomic and emotional benefits are directly relevant for physiotherapy, where stress, anxiety, and catastrophizing can amplify pain and hinder engagement in rehabilitation.

Pain Modulation and Inflammation

Vagal afferents project to the insula, anterior cingulate cortex, amygdala, and prefrontal cortex—regions that integrate sensory, emotional, and cognitive aspects of pain. By enhancing vagal tone, slow, diaphragmatic breathing can engage descending inhibitory pathways and dampen the affective distress associated with chronic pain.

The anti-inflammatory "cholinergic" pathway provides another mechanism: increased parasympathetic outflow through the vagus nerve can reduce pro-inflammatory cytokine activity, which is implicated in many chronic pain conditions. Clinical studies and reviews indicate that breathing-based interventions, including breath-focused yoga and mind–body programs, can lessen symptoms in musculoskeletal pain, migraine, and fibromyalgia, although protocols and effect sizes vary.

In chronic low back pain specifically, recent randomized trials and a 2024 meta-analysis report that adding breathing exercises to conventional care leads to reductions in pain intensity and disability beyond those achieved with usual exercise alone. These benefits appear to be mediated by a combination of autonomic calming, improved trunk muscle coordination, and changes in pain-related cognitions such as fear-avoidance beliefs.

Diaphragm, Posture, and Core Stability

The diaphragm plays a dual role as the primary muscle of respiration and as a key contributor to postural stability. During inhalation, its descent increases intra-abdominal pressure, which—when coordinated with activation of the transverse abdominis, pelvic floor, and multifidus—creates a "pressure cylinder" that stabilizes the lumbar spine and pelvis.

Individuals with chronic low back pain often exhibit altered breathing patterns, including reduced diaphragmatic excursion, increased upper chest breathing, and poor timing between respiratory and postural muscle activation. Ultrasound and electromyography studies show diminished diaphragm thickness change and impaired deep trunk muscle endurance in this population; findings associated with pain and functional limitation.

Recent trials demonstrate that combining diaphragmatic breathing exercises with core stabilization training improves pain, disability, trunk muscle activation, chest expansion, and sleep quality more than core training alone. Short laboratory studies also suggest that diaphragmatic breathing can accelerate recovery from fatigue in deep trunk muscles during prolonged sitting, highlighting its relevance for occupational and sedentary populations.

Breathing, Motor Control, and Movement Quality

Breathing rhythms interact with motor control in several ways, influencing timing, coordination, and movement variability. Many functional tasks—from lifting to gait—tend to synchronize subconsciously with respiration, and intentional coordination of breath with movement can enhance efficiency and stability.

Autonomic state strongly shapes motor strategies: sympathetic dominance promotes stiff, protective movement patterns with excessive co-contraction and reduced variability, patterns frequently seen in chronic pain or post-injury states. By shifting the system toward parasympathetic dominance, slow breathing can reduce unnecessary muscle guarding, allowing more fluid, adaptable movement and facilitating motor relearning.

The neurovisceral integration model proposes that higher vagal tone is associated with better executive functions such as inhibitory control and working memory, which are also critical for learning new motor

skills and suppressing maladaptive movement habits. In practice, teaching patients to link exhalation with exertion, coordinate breathing with complex tasks, and maintain breath awareness during graded exposure can support safer, more confident movement.

Practical Implementation in Physiotherapy

A foundational therapeutic pattern is diaphragmatic breathing: slow inhalation through the nose with visible expansion of the lower ribs and abdomen, followed by a relaxed, prolonged exhalation through the nose or pursed lips. Many protocols target approximately 6 breaths per minute, with the exhalation phase about twice as long as inhalation (for example, 4 seconds in, 6–8 seconds out) to maximize vagal stimulation and HRV benefits.

For acute pain spikes or anxiety before procedures or exercises, very brief "rescue" sets—such as three to five focused breaths over 30–90 seconds—can help reduce arousal and muscle tension. For chronic conditions, evidence supports structured programs delivered several times per week for at least 4–8 weeks, either as stand-alone sessions or embedded into strengthening, balance, and functional tasks.

In day-to-day physiotherapy, breathwork can be integrated in several ways:

- *During strengthening and functional training, exhale on exertion and inhale on recovery to avoid Valsalva maneuvers and optimize trunk stability.*
- *In postural and core exercises, cue diaphragmatic breathing while maintaining neutral alignment to enhance body awareness and reduce compensatory tension in the neck and shoulders.*
- *In pain management and graded exposure, combine slow breathing with attention to sensations and movement, helping patients confront feared tasks with reduced autonomic threat responses.*

Patient education is crucial: explaining how breathing influences the nervous system, pain, and posture can increase adherence and shift breathwork from a "relaxation extra" to a valued, self-managed strategy.

Conclusion

From a neurophysiological perspective, breathwork is a powerful, low-cost intervention that acts on multiple levels—autonomic regulation, pain modulation, inflammation, posture, and motor control—making it highly relevant to modern physiotherapy practice. Evidence from the last five years strengthens the case for integrating structured, slow diaphragmatic breathing into rehabilitation programs for conditions such as chronic low back pain, stress-related disorders, and trunk muscle dysfunction. As research continues to clarify optimal protocols and delivery methods, including digital and biofeedback-based tools, breathing is likely to become an even more central competency for physiotherapists seeking to harness the body's intrinsic capacity for recovery.

MOVEMENT AS MEDICINE: A HOLISTIC APPROACH TO CHRONIC PAIN MANAGEMENT

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Introduction: The Complexity of Chronic Pain

Chronic pain affects the ability to function physically, emotionally, and in daily activities, and it impacts overall quality of life. Traditional methods tend to focus on medication or passive modalities, but in modern physiotherapy, the emphasis is on a broader truth: movement itself can be a medicine. Combine movement with mindfulness, patient education, and lifestyle improvement, and one has a potent weapon for long-term pain relief.

Chronic pain includes issues within damaged tissues, but also with the nervous system, thoughts, emotions, habits, sleep, and daily routines. When the causative factors are multidimensional, so too must the approach be comprehensive and holistic. Chronic pain is a common condition for which patients seek care from various health-care providers. This type of pain causes much suffering and disability and is frequently mistreated or undertreated.

The Importance of Comprehensive Assessment

Patients who present for evaluation for chronic pain should undergo a careful assessment before therapy. Patients with chronic pain commonly experience depression, sleep disturbance, fatigue, and decreased overall physical and mental functioning.

The Role of Movement and Mindfulness:

Movement as a Therapeutic Tool

Movement is a core component of chronic pain management, as it addresses both the physical and neurological elements that maintain long-term pain. During normal and safe movement, the body secretes natural pain-relieving chemicals that improve blood flow and reduce stiffness in muscles and joints. Fear of movement causes avoidance, weakness, and further pain in chronic pain; gentle, graded exercise helps to break into this cycle, rebuilding confidence and restoring normal mobility.

Physiological Benefits of Movement

Regular movement strengthens weak muscles, improves posture, enhances joint stability, and prevents compensatory patterns that exacerbate pain. It can also desensitize an overactive nervous system and reduce heightened pain sensitivity, common in chronic pain conditions. Beyond the physical benefits, movement will improve mood, reduce stress, enhance sleep quality, and boost overall well-being—all factors that significantly affect pain perception.

Movement-Based Therapies in Chronic Conditions

Improved longer-term pain control and quality of life are achieved by integrating movement with education, lifestyle modification, and supportive therapies. Complementary and integrative health practices are growing in popularity, including use of movement-based therapies such as yoga, tai-chi, and qigong. Movement-based therapies are beneficial for a range of health conditions and are used more frequently by individuals with chronic illness.

How Pain Alters Movement Patterns

Movement is changed in pain. This presents across a spectrum from subtle changes in the manner in which a task is completed to complete avoidance of a function and could be both a cause and effect of pain/nociceptive input and/or injury. Movement, in a variety of forms, is also recommended as a component of treatment to aid the recovery in many pain syndromes.

Exercise as a Core Intervention

It improves mobility and flexibility through targeted exercises and stretching routines, reducing pain associated with stiffness and immobility. Strengthening exercises tailored to each patient's needs reduce physical stress on painful areas, leading to better support for joints and muscles and decreased pain levels.

Exercise is a subcategory of physical activity that is planned, structured, repetitive, and purposeful, with the goal of improving or maintaining one or more components of physical fitness. Physical activity includes exercise as well as other activities involving bodily movement during play, work, transportation, household chores, and recreation.

Exercise and Mindfulness: A Combined Approach

Exercise lies at the heart of chronic pain management. Controlled and graded movement enhances blood flow, strengthens weak muscles, increases flexibility, and reduces stiffness. It helps the brain and nervous system to learn that movement is safe and reduces fear, therefore decreasing pain sensitivity over time. Aerobic activities, such as walking or cycling, release endorphins, while strengthening and mobility exercises build stability and help restore natural patterns of movement.

Mindfulness for Pain Modulation

Mindfulness further supports this process by calming the mind–body pain loop. Deep breathing, meditation, and body scanning reduce the overactive pain alarm within the brain. While stress and fear can heighten pain, mindfulness decreases the levels of stress hormones, relaxes tense muscles, helps improve sleep, and enables them to view sensations without alarm. Together, movement and mindfulness reduce both physical and emotional components of pain.

Education and Lifestyle: Completing the Holistic Model

Pain Education for Empowerment

Pain education helps patients understand chronic pain functioning. People still believe that pain is always a sign of damage, and thus they become afraid; they avoid moving as much as possible. Learning that tissues often heal but sensitivity can remain helps remove fear and builds confidence. They understand the difference between acute and chronic pain, the role of emotions and stress, and how to pace activities to prevent flare-ups. Such knowledge encourages active participation in exercise and self-management.

Lifestyle Factors That Influence Pain

The pain-relief model is completed with lifestyle modifications: the quality of sleep, nutrition, the level of stress, physical activity routine, weight management, smoking habits, and alcohol intake all affect recovery. Small changes—sleep hygiene improvements, taking worktime movement breaks, consumption of anti-inflammatory foods, and/or daily relaxation—make an environment within the body that is healing.

The Value of Interdisciplinary Care

These changes facilitate exercise and mindfulness practices, making their benefits stronger and longer-lasting. They frequently require an interdisciplinary model of care to allow caregivers to address the multiple components of the patient's pain experience. After a careful evaluation, therapy may include medication, nerve blocks, active physical therapy, behavioral interventions, and assistance with vocational evaluation and training.

Conclusion

Taken together, exercise, mindfulness, education, and lifestyle improvements comprise a powerful, whole-person approach to pain management. Therefore, therapy is provided with the aim of decreasing pain and suffering while improving physical and mental functioning. This model fosters not only the reduction in pain but also the building of resilience, confidence, and independence. "Movement as medicine" is more than a concept; it is an empowering evidence-based pathway back to freedom, function, and quality of life.

Academic and Department Updates

Honoring Scholarly Contributions: Current Works by Our Faculty Members

We are delighted to spotlight the remarkable academic contributions of our Physiotherapy Department faculty members through their recent research article publications. Their dedication to scholarly exploration and evidence-based practice reflects our department's strong research culture and commitment to advancing physiotherapy knowledge. These publications not only enhance professional credibility but also provide valuable insights that support innovation in clinical practice, rehabilitation techniques, and patient care outcomes. Such achievements continue to inspire our students and reinforce our vision of academic excellence and leadership in the healthcare community.

Physiotherapy Faculty Research Update:

Dr. Sourav Mitra (PT)

1. *Sourav Mitra, Satyen Bhattacharyya, Amartya Mallick, Priyanka Das. Synergistic healing: Efficacy of extracorporeal shock wave therapy and low-level laser therapy in managing plantar fasciitis heel pain: A pilot Study. International Journal of Biology Sciences 2025; 7(1): 17-19, DOI: https://dx.doi.org/10.33545/26649926.2025.v7.i1a.266*
2. *Sourav Mitra, Satyen Bhattacharyya, Amartya Mallick, Priyanka Das. Pain relief in cervicogenic headache: A pilot study on manipulative therapy efficacy. International Journal of Advanced Academic Studies 2025; 7(1): 110-112, DOI: https://doi.org/10.33545/27068919.2025.v7.i1b.1341*
3. *Khairul Islam, Sourav Mitra, Tajmina Parbin, Gourab Jyoti Roy. Core and balance: Advancing rehabilitation for multiple sclerosis patients. International Journal of Biology Sciences 2025; 7(1): 06-09, DOI: https://dx.doi.org/10.33545/26649926.2025.v7.i1a.263*

Dr. Sunayana Ghosh Dostider (PT)

1. *Sunayana Ghosh Dostider. Pulses of progress: Russian current therapy in managing knee osteoarthritis. International Journal of Biology Sciences. IJBS 2025; 7(1): 10-12. https://dx.DOI.org/10.33545/26649926.2025.v7.i1a.264*
2. *Sunayana Ghosh Dostider. Balance rehabilitation treatment in patients with parkinson's disease: A randomized controlled pilot study. International Journal of Advance Academic Studies. IJAAS 2025; 7(1): 103-105. https://doi.org/10.33545/27068919.2025.v7.i1b.1339.*

Dr. Sanhita Bose (PT)

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2. *Sanhita Bose. The relationship between smartphone use duration and cervical dysfunction in university students. International Journal of Advanced Academic Studies 2025;7(1):176-179. DOI: 10.33545/27068919.2025.v7.i1c.1344, P-ISSN: 2706-8919, E-ISSN: 2706-8927.*

Dr. Gourab Jyoti Roy (PT)

1. *Gourab Jyoti Roy Urusia Parveen and Fatima Saeed. Effects of task-oriented learning on the functional mobility and balance of kids with cerebral palsy. International Journal of Biology Sciences. IJBS 2025; 7(1): 20-27. E-ISSN: 2664-9934.*
2. *Khairul Islam, Gourab Jyoti Roy and Tajmina Parbin. A case study on the role of interrupted galvanic stimulation in neuromuscular disorders: Focus on brachial amyotrophy. International Journal of Advance of academic Studies. IJAAS 2025; 7(1): 106-109. E-ISSN: 2706-8927*
3. *Gourab Jyoti Roy, Ammar Faisal Khan, Fatima Saeed and Urusia Parveen. Proprioceptive training's impact on postural stability in diabetic neuropathy individuals. International Journal of Advance Academic Studies. IJAAS 2025; 7(1): 170-175. E-ISSN: 2706-8927.*

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Synergistic healing: Efficacy of extracorporeal shock wave therapy and low level laser therapy in managing plantar fasciitis heel pain: A pilot Study

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Abstract
Background: Plantar heel pain, a common regional pain condition, can cause significant discomfort and interfere with patients' typical activities. Walking discomfort can have a detrimental impact on a patient's quality of life, and the first step in the morning can yield diagnostic information for Plantar Fasciitis patients.
Objectives: The purpose of this study was to assess the efficacy of extracorporeal shock wave treatment (ESWT) combined with low level laser therapy (LLLT) in alleviating heel pain in Plantar Fasciitis patients.
Materials and Methods: Plantar fasciitis was identified in 15 patients ranging in age from 45 to 52 years. Clinical symptoms and anamnesis confirm the diagnosis, with pain on the first step in the morning and discomfort after exercise being the most typically reported symptoms. This treatment session lasted four days a week for four weeks total. The patient was examined using the Numeric Pain Rating Scale (NPRS).
Results: Participants showed significant improvement in pre-test and post-test scores for Numeric Pain rating scale (NPRS)which was considered as statistically significant.
Conclusion: This study suggests that extracorporeal shock wave therapy (ESWT) combined with low level laser therapy (LLLT) reduces heel pain in Plantar Fasciitis patients.

Keywords: Plantar fasciitis, numeric pain rating scale, low level laser therapy, heel pain

Introduction
Plantar heel pain is a common condition that affects around 10% of the population at some point in their lives. The most common cause of this discomfort is plantar fasciitis, which is defined as inflammation of the plantar fascia, a thick band of tissue that runs along the bottom of the foot and connects the heel bone to the toes. Patients with plantar fasciitis generally experience severe discomfort when taking their first steps in the morning, which may subside with activity but often returns after longer durations of standing, walking, or exercise. The illness can severely limit movement and lower quality of life.
Conservative therapies for plantar fasciitis include physical therapy, orthotic devices, stretching exercises, and non-steroidal anti-inflammatory medications (NSAIDs). When these procedures prove insufficient, more complex treatment interventions may be required. Extracorporeal Shock Wave Therapy (ESWT) and Low-Level Laser Therapy (LLLT) are two such therapies that have been found to be beneficial in musculoskeletal problems in terms of pain relief and tissue healing.
ESWT includes delivering shock waves to the afflicted area, which promotes tissue healing and lowers inflammation. This method is especially useful in chronic instances where conservative therapies have failed. In contrast, LLLT penetrates the tissue with low-intensity lasers, boosting cellular regeneration while minimizing pain and inflammation. The combination of these two therapies has been proposed to have synergistic effects for the treatment of illnesses such as plantar fasciitis.
The purpose of this study is to assess the efficacy of ESWT and LLLT in relieving heel pain in a plantar fasciitis patient, with pain intensity quantified using the Numeric Pain Rating Scale (NPRS) as the primary outcome measure.

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Pain relief in cervicogenic headache: A pilot study on manipulative therapy efficacy

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Abstract
Background: Cervicogenic headache (CGH) is a common condition originating from cervical spine dysfunction, often leading to persistent pain and reduced quality of life. Manipulative therapy has emerged as a potential non-pharmacological intervention for managing CGH symptoms.
Objective: This pilot study aimed to evaluate the efficacy of manipulative therapy in reducing pain intensity and improving functional outcomes in patients with cervicogenic headache.
Methods: A pilot study was conducted on a sample of patients diagnosed with cervicogenic headache. Participants received a structured manipulative therapy intervention over a specified period. Pain intensity was assessed using the Numeric Pain Rating Scale (NPRS), and functional improvements were measured using the Neck Disability Index (NDI) both pre- and post-intervention.
Results: Preliminary findings indicated a significant reduction in pain intensity and improvement in neck function following manipulative therapy. Patients reported enhanced mobility, reduced headache frequency, and overall improvement in daily activities.
Conclusion: Manipulative therapy appears to be an effective approach for managing pain and improving function in patients with cervicogenic headache. Further large-scale studies are recommended to validate these findings and optimize treatment protocols.

Keywords: Cervicogenic headache, manipulative therapy, pain management, neck disability index (NDI), numeric pain rating scale (NPRS), functional outcomes

Introductions
Cervicogenic headache (CGH) is a type of secondary headache originating from dysfunction within the cervical spine, including the muscles, ligaments, and joints of the neck. It is estimated that CGH accounts for approximately 15-20% of all chronic headache cases. The hallmark of CGH is its association with neck pain, which can be exacerbated by specific neck movements or postures. Patients suffering from CGH often report reduced neck mobility, headache frequency, and significant impairment in daily activities, which affects their overall quality of life.
Given the musculoskeletal origin of CGH, the management strategies focus primarily on addressing the dysfunctions within the cervical spine. Traditional treatments include pharmacological approaches, physical therapy, and, in some cases, surgical interventions. However, many patients seek alternative non-pharmacological therapies due to the side effects or limited effectiveness of drugs. Manipulative therapy has emerged as a promising option for CGH, involving the application of manual techniques to the spine to improve mobility, reduce pain, and restore functional ability.
The objective of this pilot study was to assess the impact of manipulative therapy on both pain intensity and functional limitations in patients diagnosed with cervicogenic headache. This study aims to contribute to the growing body of evidence supporting the use of non-pharmacological treatments for managing CGH.

Literature Review
Previous studies have demonstrated the potential benefits of manipulative therapy for musculoskeletal pain, particularly in conditions related to the neck. Spinal manipulative therapy (SMT) involves techniques such as high-velocity low-amplitude thrusts (HVLA) and mobilization methods aimed at restoring normal spinal mechanics. Several clinical trials

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Core and balance: Advancing rehabilitation for multiple sclerosis patients

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Abstract
Background: Multiple Sclerosis (MS) is a chronic neurological disorder marked by demyelination in the central nervous system, leading to impairments in balance, coordination, and mobility. Balance dysfunction is a frequent symptom in MS, significantly affecting quality of life. Core muscle strengthening is proposed as an effective intervention for improving balance in MS patients.
Objective: This case study evaluates the effectiveness of a core strengthening program in improving balance in a patient with MS.
Methods: A 32-year-old male with relapsing-remitting MS (RRMS) and moderate balance difficulties, assessed by the Berg Balance Scale (BBS) and Timed Up and Go (TUG) test, underwent a 6-week physiotherapy intervention focused on core strengthening exercises including planks, bridges, pelvic tilts three times weekly. Balance was reassessed post-intervention.
Results: Significant improvements were observed, with BBS scores increasing from 32 to 38 and TUG time decreasing from 14 to 11 seconds, indicating enhanced balance and functional mobility. The patient also reported greater confidence during daily activities.
Conclusion: Core strengthening appears effective in improving balance in MS patients. Further research with larger samples is recommended to generalize these findings.

Keywords: Multiple sclerosis, core strengthening, balance, physiotherapy, berg balance scale, functional mobility

1. Introduction
Multiple Sclerosis (MS) is a chronic, progressive, and demyelinating disease of the central nervous system (CNS) that affects an estimated 2.8 million individuals globally (Multiple Sclerosis International Federation, 2020) [7]. MS is characterized by periods of exacerbation and remission, where the immune system attacks the myelin sheath, the protective covering of nerves, leading to impaired nerve transmission. This can result in various symptoms, including motor, sensory, and cognitive dysfunction, and notably, balance and coordination impairments. The frequency and severity of these symptoms vary widely, but for many patients, difficulties with balance and coordination are common and disabling, often leading to reduced mobility and a lower quality of life (Larochelle *et al*., 2016) [5].
In recent years, core muscle strengthening has been proposed as a key intervention to mitigate balance dysfunction in individuals with MS. Core muscles, including the abdominals, back muscles, and pelvic floor, provide a foundation for maintaining posture and dynamic balance. By targeting these muscles, physical therapists aim to enhance the stability and coordination required for daily functional movements (Freeman *et al*., 2018) [3]. This case study explores the impact of a core strengthening regimen on balance in a 36-year-old male patient with relapsing-remitting MS (RRMS), a common subtype characterized by alternating periods of symptom exacerbation and remission.

2. Case Presentation
2.1 Patient Background
The patient, a 32-year-old man, was diagnosed at age 28 with relapsing-remitting multiple sclerosis (RRMS). Moderate balance and coordination issues are his main complaints, and they have gotten worse over the last three years. The Berg Balance Scale (BBS) and the Timed Up and Go (TUG) test are two established measures of balance that were used to

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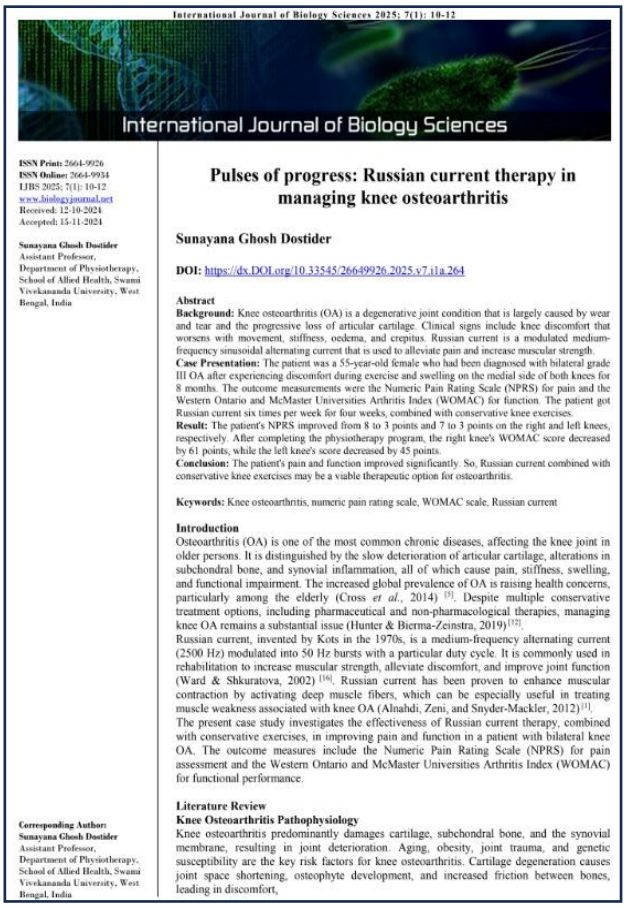

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Pulses of progress: Russian current therapy in managing knee osteoarthritis

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Abstract

Background: Knee osteoarthritis (OA) is a degenerative joint condition that is largely caused by wear and tear and the progressive loss of articular cartilage. Clinical signs include knee discomfort that worsens with movement, stiffness, oedema, and crepitus. Russian current is a modulated medium-frequency sinusoidal alternating current that is used to alleviate pain and increase muscular strength.

Case Presentation: The patient was a 55-year-old female who had been diagnosed with bilateral grade III OA after experiencing discomfort during exercise and swelling on the medial side of both knees for 8 months. The outcome measurements were the Numeric Pain Rating Scale (NPRS) for pain and the Western Ontario and McMaster Universities Arthritis Index (WOMAC) for function. The patient got Russian current six times per week for four weeks, combined with conservative knee exercises.

Result: The patient's NPRS improved from 8 to 3 points and 7 to 3 points on the right and left knees, respectively. After completing the physiotherapy program, the right knee's WOMAC score decreased by 61 points, while the left knee's score decreased by 45 points.

Conclusion: The patient's pain and function improved significantly. So, Russian current combined with conservative knee exercises may be a viable therapeutic option for osteoarthritis.

Keywords: Knee osteoarthritis, numeric pain rating scale, WOMAC scale, Russian current

Introduction

Osteoarthritis (OA) is one of the most common chronic diseases, affecting the knee joint in older persons. It is distinguished by the slow deterioration of articular cartilage, alterations in subchondral bone, and synovial inflammation, all of which cause pain, stiffness, swelling, and functional impairment. The increased global prevalence of OA is raising health concerns, particularly among the elderly (Cross *et al.*, 2014) [3]. Despite multiple conservative treatment options, including pharmaceutical and non-pharmacological therapies, managing knee OA remains a substantial issue (Hunter & Bierma-Zeinstra, 2019)[12].

Russian current, invented by Kots in the 1970s, is a medium-frequency alternating current (2500 Hz) modulated into 50 Hz bursts with a particular duty cycle. It is commonly used in rehabilitation to increase muscular strength, alleviate discomfort, and improve joint function (Ward & Shkuratova, 2002) [16]. Russian current has been proven to enhance muscular contraction by activating deep muscle fibers, which can be especially useful in treating muscle weakness associated with knee OA (Alnahdi, Zeni, and Snyder-Mackler, 2012)[1].

The present case study investigates the effectiveness of Russian current therapy, combined with conservative exercises, in improving pain and function in a patient with bilateral knee OA. The outcome measures include the Numeric Pain Rating Scale (NPRS) for pain assessment and the Western Ontario and McMaster Universities Arthritis Index (WOMAC) for functional performance.

Literature Review

Knee Osteoarthritis Pathophysiology

Knee osteoarthritis predominantly damages cartilage, subchondral bone, and the synovial membrane, resulting in joint deterioration. Aging, obesity, joint trauma, and genetic susceptibility are the key risk factors for knee osteoarthritis. Cartilage degeneration causes joint space shortening, osteophyte development, and increased friction between bones, leading in discomfort,

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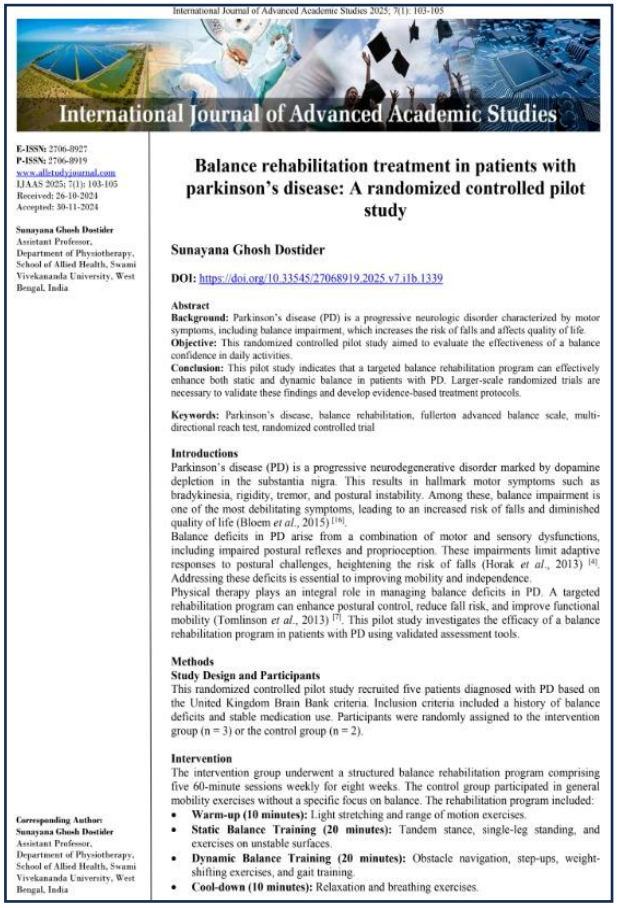

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Balance rehabilitation treatment in patients with parkinson's disease: A randomized controlled pilot study

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Abstract

Background: Parkinson's disease (PD) is a progressive neurologic disorder characterized by motor symptoms, including balance impairment, which increases the risk of falls and affects quality of life.

Objective: This randomized controlled pilot study aimed to evaluate the effectiveness of a balance confidence in daily activities.

Conclusion: This pilot study indicates that a targeted balance rehabilitation program can effectively enhance both static and dynamic balance in patients with PD. Larger-scale randomized trials are necessary to validate these findings and develop evidence-based treatment protocols.

Keywords: Parkinson's disease, balance rehabilitation, fullerton advanced balance scale, multi-directional reach test, randomized controlled trial

Introductions

Parkinson's disease (PD) is a progressive neurodegenerative disorder marked by dopamine depletion in the substantia nigra. This results in hallmark motor symptoms such as bradykinesia, rigidity, tremor, and postural instability. Among these, balance impairment is one of the most debilitating symptoms, leading to an increased risk of falls and diminished quality of life (Bloem *et al.*, 2015) [16].

Balance deficits in PD arise from a combination of motor and sensory dysfunctions, including impaired postural reflexes and proprioception. These impairments limit adaptive responses to postural challenges, heightening the risk of falls (Horak *et al.*, 2013) [4]. Addressing these deficits is essential to improving mobility and independence.

Physical therapy plays an integral role in managing balance deficits in PD. A targeted rehabilitation program can enhance postural control, reduce fall risk, and improve functional mobility (Tomlinson *et al.*, 2013) [7]. This pilot study investigates the efficacy of a balance rehabilitation program in patients with PD using validated assessment tools.

Methods

Study Design and Participants

This randomized controlled pilot study recruited five patients diagnosed with PD based on the United Kingdom Brain Bank criteria. Inclusion criteria included a history of balance deficits and stable medication use. Participants were randomly assigned to the intervention group (n = 3) or the control group (n = 2).

Intervention

The intervention group underwent a structured balance rehabilitation program comprising five 60-minute sessions weekly for eight weeks. The control group participated in general mobility exercises without a specific focus on balance. The rehabilitation program included:

- **Warm-up (10 minutes):** Light stretching and range of motion exercises.
- **Static Balance Training (20 minutes):** Tandem stance, single-leg standing, and exercises on unstable surfaces.
- **Dynamic Balance Training (20 minutes):** Obstacle navigation, step-ups, weight-shifting exercises, and gait training.
- **Cool-down (10 minutes):** Relaxation and breathing exercises.

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Unlocking flexibility: The effects of cupping therapy on hamstring mobility and muscle function

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Abstract

Background: Hamstring tightness is a common issue affecting athletes and non-athletes alike, often leading to reduced flexibility, impaired muscle function, and increased risk of injury. Cupping therapy, a traditional therapeutic technique, has gained popularity in musculoskeletal rehabilitation for its potential to improve mobility, reduce pain, and enhance muscle performance. However, its specific effects on hamstring flexibility and function remain under-researched.

Aims: This study aimed to investigate the effects of cupping therapy on hamstring flexibility and muscle function, exploring its potential as a non-invasive intervention for managing hamstring tightness.

Methods: A randomized controlled trial was conducted with 30 participants experiencing hamstring tightness. Participants were divided into two groups: the intervention group received cupping therapy, and the control group followed standard stretching exercises. Hamstring flexibility was assessed using the sit-and-reach test, while muscle function was evaluated through isokinetic strength testing. Measurements were taken at baseline, immediately post-intervention, and after one week.

Results: The intervention group showed a significant improvement in hamstring flexibility ($p<0.05$) compared to the control group. Additionally, muscle function, as measured by peak torque, improved significantly in the cupping therapy group ($p<0.05$). These improvements were maintained at the one-week follow-up. Participants also reported reduced muscle stiffness and enhanced performance during physical activities.

Conclusion: Cupping therapy demonstrated significant efficacy in improving hamstring flexibility and muscle function compared to traditional stretching exercises. These findings suggest that cupping therapy could be an effective complementary treatment for managing hamstring tightness and optimizing muscle performance. Further studies are recommended to explore its long-term effects and underlying mechanisms.

Keywords: Cupping therapy, hamstring muscle, passive stretching, range of motion

Introduction

Musculoskeletal tightness, particularly in the hamstrings, is a common issue that affects flexibility, athletic performance, and functional movement. Limited hamstring mobility is often associated with muscle imbalances, altered biomechanics, and an increased risk of injury. Traditional rehabilitation and recovery strategies, such as stretching and myofascial release, have shown varied effectiveness in addressing these limitations. In recent years, cupping therapy has emerged as a promising complementary intervention for improving musculoskeletal function.

Cupping therapy, a traditional therapeutic practice with roots in ancient medicine, involves creating suction on the skin using specially designed cups. This technique is believed to improve blood circulation, reduce fascial restrictions, and alleviate muscle tension, thereby enhancing range of motion and muscle activity. Despite its growing popularity, the scientific evidence supporting cupping therapy's efficacy in improving hamstring flexibility and muscle function remains limited.

This study seeks to explore the effects of cupping therapy on hamstring mobility and neuromuscular function. By examining changes in range of motion and muscle activity, this research aims to provide deeper insights into the physiological mechanisms underlying cupping therapy and its potential applications in sports medicine and rehabilitation. The findings could help establish cupping therapy as a viable modality for enhancing flexibility

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The relationship between smartphone use duration and cervical dysfunction in university students

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Abstract

Objective: This study examines how prolonged mobile phone use affects neck posture, headache occurrence, and cervical range of motion in university students.

Methods: Neck posture was assessed using photographic analysis, headaches were recorded through self-reported surveys, and cervical range of motion was measured with a goniometer. Participants were categorized based on their daily mobile phone use, and statistical analyses were performed to explore relationships between mobile phone usage and the outcomes.

Results: revealed a significant correlation between extended mobile phone use and poor neck posture, increased headache prevalence, and reduced cervical range of motion.

The findings suggest that excessive mobile phone usage adversely affects musculoskeletal health, emphasizing the need for interventions to mitigate these issues. This research provides insights into the ultimate consequences of modern technology on physical well-being and underscores the importance of ergonomic practices.

Keywords: Neck posture, headache, and cervical range of motion

Introductions

As mobile phones have become more widely used, worries regarding the long-term effects on the musculoskeletal system have grown. Students at universities, in particular, use mobile devices extensively for social and academic reasons. The purpose of this study is to investigate how long-term mobile phone use affects university students' neck posture, headaches, and CROM.

Long-term mobile phone use is usually associated with a static and frequently uncomfortable posture, which is typified by rounded shoulders and a forward head position. The condition known as "text neck," which is linked to migraines, neck pain, and decreased cervical range of motion, can result from this posture. Students' quality of life and academic performance may be impacted by musculoskeletal diseases, which can be exacerbated by prolonged bad posture and repetitive stress.

Numerous musculoskeletal complaints have been linked to cell phone use in earlier research. There is still a lack of knowledge, nevertheless, about the precise effects on neck posture, the frequency and intensity of headaches, and the degree of cervical range of motion restriction among college students. By methodically investigating the connection between extended mobile phone use and its effects on cervical range of motion, headache frequency and intensity, and neck posture in this population, this study seeks to close these gaps.

To reduce the negative health impacts linked to mobile phone use, it is essential to comprehend these interactions in order to establish ergonomic guidelines and effective interventions. This study aims to educate students, teachers, and medical professionals on the physical effects of prolonged mobile phone use and the significance of implementing healthier mobile phone usage practices in order to avoid musculoskeletal issues.

Literature review

Neck Posture and Mobile Phone Use

Research indicates that prolonged mobile phone use often results in a forward head posture (FHP), which increases the load on the cervical spine and surrounding muscles. Studies by Kim *et al.* (2015) [7] and Gustafsson *et al.* (2018) [3] show a clear link between mobile phone use and FHP.

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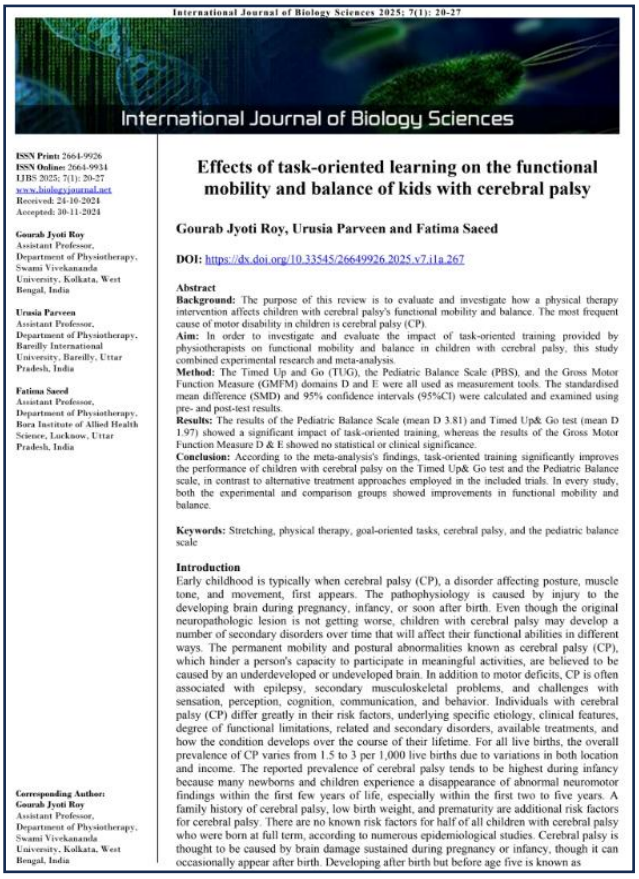

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Effects of task-oriented learning on the functional mobility and balance of kids with cerebral palsy

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Abstract

Background: The purpose of this review is to evaluate and investigate how a physical therapy intervention affects children with cerebral palsy's functional mobility and balance. The most frequent cause of motor disability in children is cerebral palsy (CP).

Aim: In order to investigate and evaluate the impact of task-oriented training provided by physiotherapists on functional mobility and balance in children with cerebral palsy, this study combined experimental research and meta-analysis.

Method: The Timed Up and Go (TUG), the Pediatric Balance Scale (PBS), and the Gross Motor Function Measure (GMFM) domains D and E were all used as measurement tools. The standardised mean difference (SMD) and 95% confidence intervals (95%CI) were calculated and examined using pre- and post-test results.

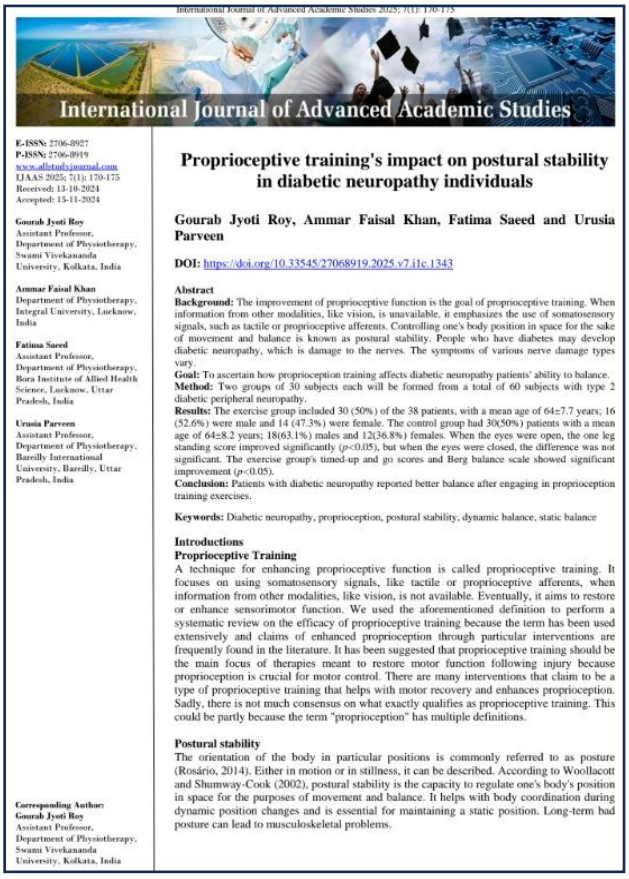
Results: The results of the Pediatric Balance Scale (mean D 3.81) and Timed Up& Go test (mean D 1.97) showed a significant impact of task-oriented training, whereas the results of the Gross Motor Function Measure D & E showed no statistical or clinical significance.

Conclusion: According to the meta-analysis's findings, task-oriented training significantly improves the performance of children with cerebral palsy on the Timed Up& Go test and the Pediatric Balance scale, in contrast to alternative treatment approaches employed in the included trials. In every study, both the experimental and comparison groups showed improvements in functional mobility and balance.

Keywords: Stretching, physical therapy, goal-oriented tasks, cerebral palsy, and the pediatric balance scale

Introduction

Early childhood is typically when cerebral palsy (CP), a disorder affecting posture, muscle tone, and movement, first appears. The pathophysiology is caused by injury to the developing brain during pregnancy, infancy, or soon after birth. Even though the original neuropathologic lesion is not getting worse, children with cerebral palsy may develop a number of secondary disorders over time that will affect their functional abilities in different ways. The permanent mobility and postural abnormalities known as cerebral palsy (CP), which hinder a person's capacity to participate in meaningful activities, are believed to be caused by an underdeveloped or undeveloped brain. In addition to motor deficits, CP is often associated with epilepsy, secondary musculoskeletal problems, and challenges with sensation, perception, cognition, communication, and behavior. Individuals with cerebral palsy (CP) differ greatly in their risk factors, underlying specific etiology, clinical features, degree of functional limitations, related and secondary disorders, available treatments, and how the condition develops over the course of their lifetime. For all live births, the overall prevalence of CP varies from 1.5 to 3 per 1,000 live births due to variations in both location and income. The reported prevalence of cerebral palsy tends to be highest during infancy because many newborns and children experience a disappearance of abnormal neuromotor findings within the first few years of life, especially within the first two to five years. A family history of cerebral palsy, low birth weight, and prematurity are additional risk factors for cerebral palsy. There are no known risk factors for half of all children with cerebral palsy who were born at full term, according to numerous epidemiological studies. Cerebral palsy is thought to be caused by brain damage sustained during pregnancy or infancy, though it can occasionally appear after birth. Developing after birth but before age five is known as



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Proprioceptive training's impact on postural stability in diabetic neuropathy individuals

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Abstract

Background: The improvement of proprioceptive function is the goal of proprioceptive training. When information from other modalities, like vision, is unavailable, it emphasizes the use of somatosensory signals, such as tactile or proprioceptive afferents. Controlling one's body position in space for the sake of movement and balance is known as postural stability. People who have diabetes may develop diabetic neuropathy, which is damage to the nerves. The symptoms of various nerve damage types vary.

Goal: To ascertain how proprioception training affects diabetic neuropathy patients' ability to balance.

Method: Two groups of 30 subjects each will be formed from a total of 60 subjects with type 2 diabetic peripheral neuropathy.

Results: The exercise group included 30 (50%) of the 38 patients, with a mean age of 64±7.7 years; 16 (52.6%) were male and 14 (47.3%) were female. The control group had 30(50%) patients with a mean age of 64±8.2 years; 18(63.1%) males and 12(36.8%) females. When the eyes were open, the one leg standing score improved significantly ($p<0.05$), but when the eyes were closed, the difference was not significant. The exercise group's timed-up and go scores and Berg balance scale showed significant improvement ($p<0.05$).

Conclusion: Patients with diabetic neuropathy reported better balance after engaging in proprioception training exercises.

Keywords: Diabetic neuropathy, proprioception, postural stability, dynamic balance, static balance

Introductions

Proprioceptive Training

A technique for enhancing proprioceptive function is called proprioceptive training. It focuses on using somatosensory signals, like tactile or proprioceptive afferents, when information from other modalities, like vision, is not available. Eventually, it aims to restore or enhance sensorimotor function. We used the aforementioned definition to perform a systematic review on the efficacy of proprioceptive training because the term has been used extensively and claims of enhanced proprioception through particular interventions are frequently found in the literature. It has been suggested that proprioceptive training should be the main focus of therapies meant to restore motor function following injury because proprioception is crucial for motor control. There are many interventions that claim to be a type of proprioceptive training that helps with motor recovery and enhances proprioception. Sadly, there is not much consensus on what exactly qualifies as proprioceptive training. This could be partly because the term "proprioception" has multiple definitions.

Postural stability

The orientation of the body in particular positions is commonly referred to as posture (Rosário, 2014). Either in motion or in stillness, it can be described. According to Woollacott and Shumway-Cook (2002), postural stability is the capacity to regulate one's body's position in space for the purposes of movement and balance. It helps with body coordination during dynamic position changes and is essential for maintaining a static position. Long-term bad posture can lead to musculoskeletal problems.

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A case study on the role of interrupted galvanic stimulation in neuromuscular disorders: Focus on brachial amyotrophy

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Abstract

Background: A rare neuromuscular condition that mostly affects the upper limbs, brachial amyotrophy is characterized by severe discomfort that is followed by muscle weakness and atrophy. The focus of traditional management is on rehabilitation and symptom relief, however, little is known about how electrotherapy, and in particular interrupted galvanic stimulation (IGS), can improve functional outcomes.

Objective: In this case study, the efficacy of IGS in improving muscle strength and alleviating brachial amyotrophy symptoms is assessed.

Case Presentation: Brachial amyotrophy was identified in a 44-year-old man who had atrophy, growing weakening, and intense discomfort in his right upper limb. Physiotherapy and other forms of standard rehabilitation produced little progress. IGS was first offered as a treatment adjunct.

Intervention: For eight weeks, the patient had IGS treatments three times a week, focusing on particular muscle groups.

Results: The affected limb's manual muscle testing (MMT) scores increased from 1/5 to 2/5 after the intervention. The patient reported better range of motion, less pain, and increased ability to carry out everyday tasks.

Conclusion: IGS helps with muscular strength recovery and symptom reduction, suggesting that it is a useful adjunct in the treatment of brachial amyotrophy. To validate these results and create standardized treatment methods, further research are required.

Keywords: Brachial amyotrophy, interrupted galvanic stimulation, muscle weakness, electrotherapy

1. Introductions

A uncommon and crippling neuromuscular condition, brachial amyotrophy (BA), often referred to as neuralgic amyotrophy or Parsonage-Turner syndrome, is typified by intense pain that is followed by muscle weakness and atrophy. Significant functional limitations result from the disorder, which typically affects the upper limbs. Although some cases are connected to trauma, infections, or immunological reactions, BA is typically idiopathic (Van Alfen & van Engelen, 2006) [4]. With differing degrees of success, the traditional approach to managing BA has centered on symptomatic treatment using analgesics, physiotherapy, and rehabilitation. In neuromuscular illnesses, electrotherapy-in particular, interrupted galvanic stimulation, or IGS-has shown promise as an adjuvant treatment to improve muscle rehabilitation. But its exact function in BA is still unknown.

A type of electrotherapy called interrupted galvanic stimulation (IGS) uses brief bursts of direct current to induce muscle contraction. In order to increase muscle strength, encourage neuromuscular re-education, and lessen pain, IGS has been used to treat peripheral nerve injuries and muscular atrophy (Bertolini *et al*., 2018) [8]. The usefulness of IGS in treating BA is still not well understood, despite its potential. A case study of a 49-year-old man with brachial amyotrophy is presented in this research, with an emphasis on how IGS might increase muscular strength and lessen symptoms.

By evaluating the efficacy of IGS as an adjuvant treatment in improving muscle strength and alleviating symptoms in a patient with BA, this case study seeks to add to the small amount of research on the application of electrotherapy, and specifically IGS, in the treatment of BA.

Advancing Knowledge: Physiotherapy Department Shines at ICHRD 2025

The Physiotherapy Department of Swami Vivekananda University proudly participated in the ***International Conference on Healthcare Research and Development (ICHRD)****, held from* ***February 7th to 9th, 2025*** *(date subject to official confirmation) at the university campus. This landmark event brought together leading researchers, academicians, and healthcare professionals from across the globe to exchange innovations and strengthen interdisciplinary collaboration.*

Showcasing its commitment to ***clinical excellence*** *and* ***evidence-based care****, the department made a strong impression through impactful sessions and active engagement. A major highlight was an insightful presentation by* ***Dr. Ayan Ghosal (MBBS, MD, DNB, Physical Medicine and Rehabilitation)*** *on "****Shoulder Hydrodilatation*** *in* ***Frozen Shoulder.****" His talk explored the latest procedural advances and clinical applications, offering valuable takeaways for physiotherapists and allied health professionals alike.*

Another noteworthy session delved into the ***neuropathic and systemic origins of chronic pain****, emphasizing complex conditions such as* ***Reflex Sympathetic Dystrophy (RSD)*** *and* ***Complex Regional Pain Syndrome (CRPS).*** *Key discussions revolved around the role of catecholamines (notably norepinephrine), the immune system's involvement, and predisposing factors like*

hyper-sympathetic reactivity, psychological influences, and persistent painful lesions as potential triggers.

The conference buzzed with energy as faculty and students from the Physiotherapy Department participated in lively discussions, poster presentations, and networking sessions. It not only broadened academic perspectives but also reaffirmed the department's growing reputation as a hub for innovative research and advanced clinical training in ***Rehabilitation and Physical Medicine.***

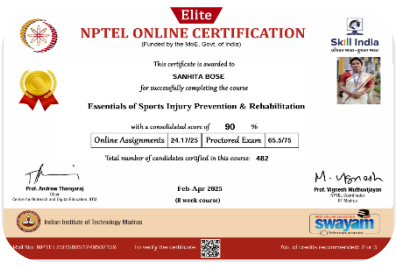
The department extends heartfelt gratitude to all speakers, delegates, and organizers for making ICHRD 2025 a memorable success.

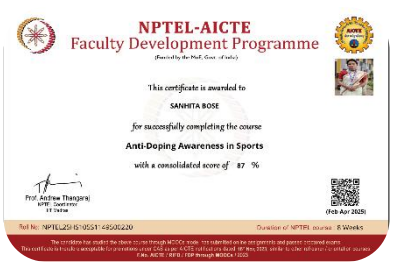
Celebrating Faculties Achievement: Successful Completion of NPTEL Course

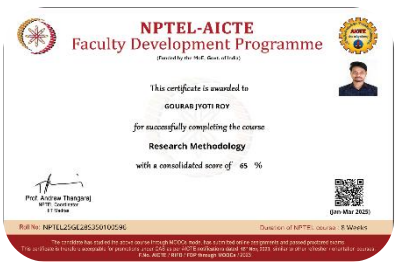
We are proud to share that the esteemed ***faculty members*** *of the* ***Department of Physiotherapy*** *have successfully completed multiple* ***NPTEL certification courses****, further enhancing their* ***academic excellence and professional expertise****. Their dedication to continuous learning is a reflection of our department's commitment to delivering high-quality education and staying aligned with current advancements in the field of physiotherapy.*

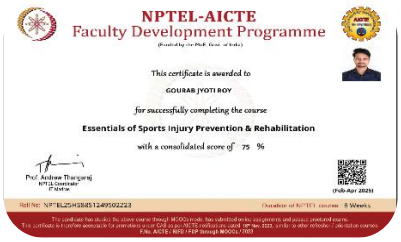
The courses completed include ***"Essentials of Sports Injury Prevention & Rehabilitation," "Anti-Doping Awareness in Sports," and "Research Methodology."*** *These certifications not only strengthen the clinical and research competencies of our faculty but also greatly contribute to enriching the learning experience of our students, especially in the growing domain of* ***sports sciences and evidence-based practice****.*

We congratulate our faculty members for this remarkable achievement and for constantly setting an inspiring example of lifelong learning and professional growth.





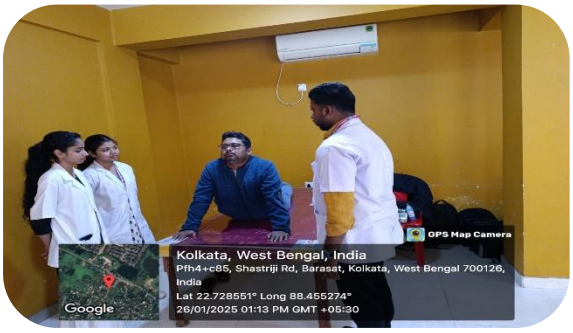




Empowering Movement, Empowering Lives – Physiotherapy Health Checkup Camps

- *Physiotherapy health camps play a vital role in promoting early detection of musculoskeletal problems and spreading awareness about preventive care. These camps provide accessible assessment, guidance, and therapeutic support to the community, helping people improve their functional health and overall well-being.*

*On **26.01.2025**, the Physiotherapy Department conducted a health camp at **Mangolia Srijana, Barasat**, from **10:00 AM**, led by **Dr. Sourav Mitra (PT)** and **Dr. Sunayana Ghosh Dostider (PT).** Attendees received personalized assessments and home-based exercises that helped them understand their conditions and manage pain effectively.*

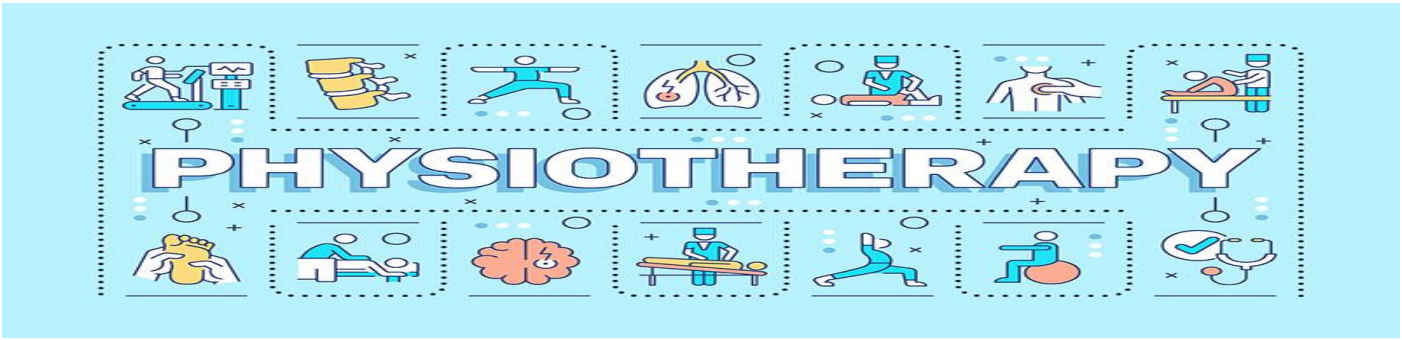


*Further camps were organized on **13.02.2025**, **14.02.2025**, and **15.02.2025** at **Swami Vivekananda University, Barrackpore**, from **10:30 AM**, led by **Dr. Sourav Mitra (PT), Dr. Sunayana Ghosh Dostider (PT), Dr. Sanhita Bose (PT), Dr. Raveena Kothari (PT) and Dr. Gourav Jyoti Roy (PT).** The college arranged the camps smoothly, and participants benefited from expert screenings, corrective exercises, and early physiotherapy intervention.*

*Another camp was held on **23.02.2025** at **Sasthitala Young Star Club, Shyam Nagar**, from **10:30 AM**, conducted by **Dr. Gourav Jyoti Roy (PT).** Community members, along with **nine** participating students, received valuable guidance, posture correction, and therapeutic exercises that improved their **musculoskeletal awareness**.*

*An additional camp on **23.02.2025** took place at **Nimta Aikkya Sammilani Club**, from **10:30 AM**, led by **Dr. Sourav Mitra (PT)**. People in the locality, along with nine students, benefited through targeted physiotherapy screening and simple strategies to manage daily pain and postural issues.*

*The most recent camp on **30.03.2025** was conducted at **Nimta Aikkya Sammilani Club**, from **10:30 AM**, led by **Dr. Sunayana Ghosh Dostider (PT) and Dr. Sanhita Bose (PT)**. Residents, along with **six** participating students, gained effective pain-relief guidance and learned easy exercises, helping them improve posture, flexibility, and daily functional movement.*

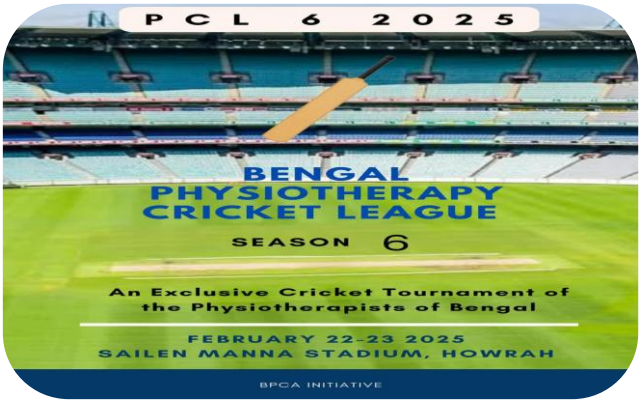


Swinging Bats, Strong Spirits – Physiotherapy in Motion!

The Department of Physiotherapy is thrilled to highlight the passion and accomplishments of our students during the recent inter-college cricket tournament. This exciting event showcased 10 enthusiastic teams, with each match played in a rapid 5-over format featuring 11 players per team, ensuring a plethora of exhilarating moments.

*Our physiotherapy students showcased remarkable skills, exemplifying not just their cricketing abilities but also their **discipline, teamwork**, and **unwavering determination**. Their **sportsmanship** and **vibrant energy** embodied the **fundamental values of resilience, leadership,** and **collaboration**—traits that are vital in both sports and the field of **physiotherapy.***

*Additionally, the tournament proved to be an invaluable learning opportunity. For our students, cricket transcended mere recreation; it provided a practical application of their academic knowledge. Concepts like **endurance**, **biomechanics**, **agility**, **coordination**, and **injury prevention** were vividly illustrated as they participated in this engaging sport. The experience offered them practical insights into movement efficiency, recovery strategies, and the essential role of physical activity in promoting overall health and wellness.*

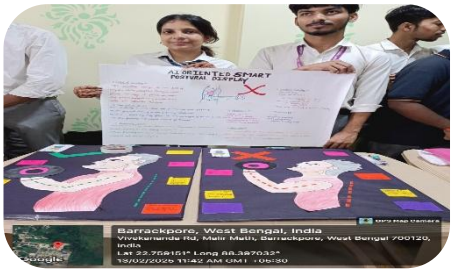


Furthermore, the event cultivated a robust sense of community, confidence, and active living, reinforcing the idea that physiotherapists are not just healers but also champions of fitness and holistic health.

*We extend our heartfelt congratulations to our students for their enthusiastic participation and outstanding performances. Their vigor and commitment serve as a powerful reminder that **movement is medicine**, and every stride taken—whether on the field or in practice—brings us closer to **strength, health,** and **resilience**.*

Healing Hands at Nirman Mela: Physiotherapy Shines with Excellence

*The **Department of Physiotherapy** at **SVU** proudly took part in the university's grand **Nirman Mela 2025**, a vibrant platform aimed at showcasing the creativity, innovation, and technical prowess of students from various disciplines. This event, held under the auspices of the **Smart India Hackathon – Tech Fest**, united enthusiastic young minds eager to transform their ideas into meaningful real-world solutions.*



*The fest was a tribute to innovation, where students showcased projects that merged technology and creativity to address everyday challenges. Our Physiotherapy Department made significant contributions with distinctive demonstrations that highlighted the fusion of **healthcare and technology,** showcasing how physiotherapy can advance through **innovation and interdisciplinary collaboration**. From models centered on **rehabilitation technology**, **ergonomic designs**, and **assistive devices**, our students presented visionary ideas focused on enhancing patient care and promoting wellness.*

*Attendees, including faculty members, students, and special guests, commended the department's efforts in connecting medical science with contemporary engineering. The event not only motivated participants to think beyond traditional learning but also reinforced the **values** of **teamwork**, **research**, and **creativity**.*

***The Nirman Mela 2025** truly captured the **spirit of innovation** — transforming **imagination into invention** — and stood as a testament to SVU's dedication to fostering talent that will contribute to a brighter future.*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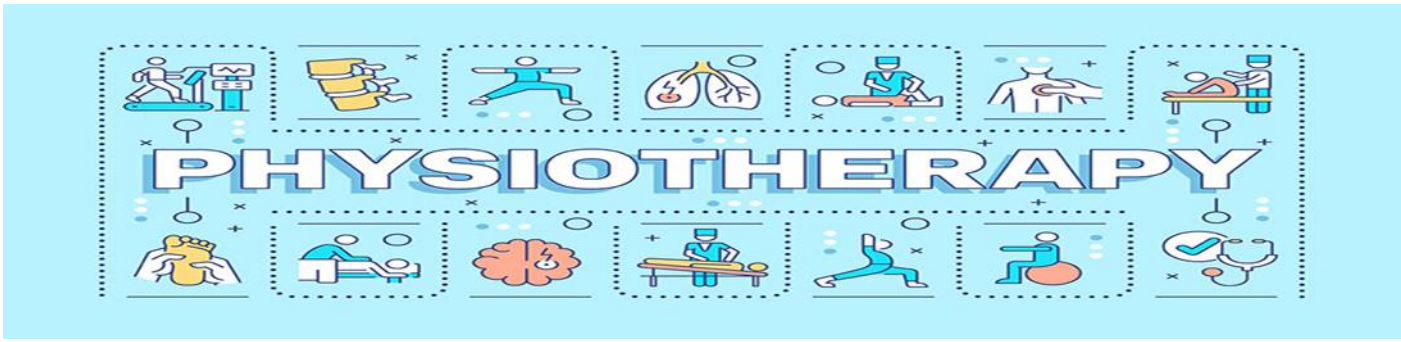
Vivekananda Rd, Malir Math, Barrackpore, West Bengal 700120, India
Lat 22.759117° Long 88.397027°
13/02/2025 11:45 AM GMT +05:30


THE ULTIMATE FALL PREVENTION BELT
Barrackpore, West Bengal, India
Q95w+hc, Malir Math, Barrackpore, West Bengal 700120, India
Lat 22.759225° Long 88.397054°
13/02/2025 11:44 AM GMT +05:30


NEURAL INTERFACE
Barrackpore, West Bengal, India
Vivekananda Rd, Malir Math, Barrackpore, West Bengal 700120, India
Lat 22.759039° Long 88.397119°
13/02/2025 11:44 AM GMT +05:30



Student Achievement: Successful Completion of NPTEL Course

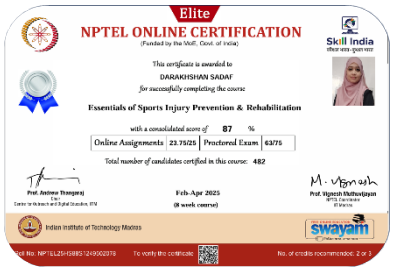
We are thrilled to commemorate our students' academic achievements in the physiotherapy department.

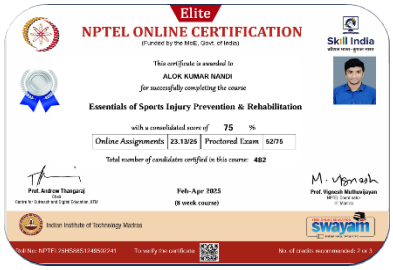
BPT2022 Batch: *There are* ***14 students*** *successfully completed* ***NPTEL*** *Course* ***(Essentials of Sports Injury Prevention and Rehabilitation)***

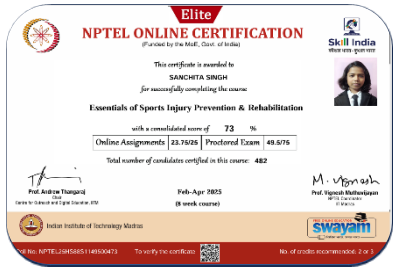
Our students of the Department of Physiotherapy have successfully completed the prestigious NPTEL course titled ***"Essentials of Sports Injury Prevention and Rehabilitation."*** *This comprehensive program, offered by renowned experts in the field of* ***sports medicine and physiotherapy****, focuses on developing a deeper understanding of* ***common sports injuries, their underlying mechanisms, and evidence-based strategies for prevention and rehabilitation.***

The course equips learners with essential knowledge on risk assessment, athlete conditioning, biomechanics, recovery techniques, and therapeutic interventions to ensure safe and effective return-to-play outcomes. It bridges the gap between theory and practical application, empowering future physiotherapists to deliver quality care in sports and fitness settings.

This achievement reflects the dedication of our students toward advancing their professional skills and contributing to the growth of sports healthcare. We take immense pride in their commitment and enthusiasm to stay updated with evolving clinical practices.





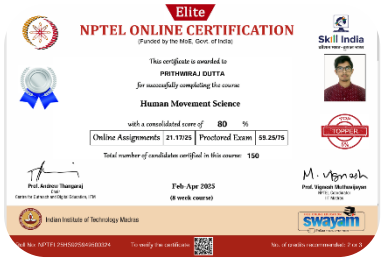


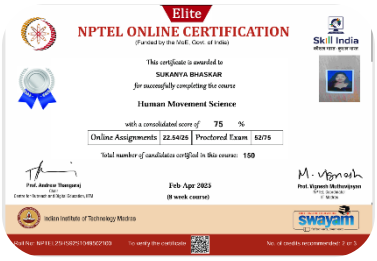
BPT2023 Batch: *Out of the cohort,* ***15 students*** *have finished the* ***NPTEL*** *course* ***"(Human Movement Science")***

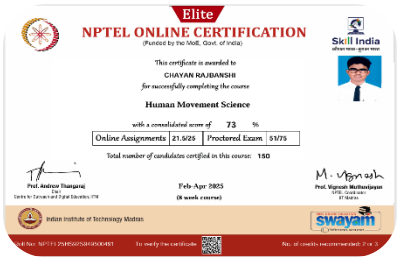
Our 2023 batch Bachelor of Physiotherapy students have successfully completed an important learning module on ***Human Movement Science****, strengthening their foundation in the* ***core principles of movement analysis and functional performance.*** *This subject focuses on understanding how the body moves, the factors influencing movement, and the scientific basis behind efficient motor control and biomechanics.*

Through this course, students gained valuable insights into ***posture, gait, coordination, muscle actions, and the intricate relationship between the neuromuscular and musculoskeletal systems.*** *It enhances their ability to assess, interpret, and correct movement dysfunctions, which is essential in both* ***clinical rehabilitation*** *and* ***sports performance environments.***

The dedication and active participation of our students demonstrate their growing competence as future physiotherapists, committed to promoting safe, functional, and well-coordinated movement in individuals across all age groups. This academic milestone highlights their continuous pursuit of knowledge and professional excellence.







BPT2024 Batch: 1 student has successfully completed NPTEL Course (Air Pollution and Control)

*Our 2024 batch Bachelor of Physiotherapy students have successfully engaged in an insightful learning module on **Air Pollution and Control**, emphasizing the importance of environmental health in shaping overall human well-being. This course highlights the major sources and harmful effects of air pollutants on the respiratory, cardiovascular, and neuromuscular systems, which are key areas of concern in clinical physiotherapy practice.*

Students explored innovative strategies for pollution control, preventive measures, and public health initiatives that aim to reduce environmental hazards and promote healthier lifestyles. By understanding how environmental factors influence disease patterns and physical function, our students are better prepared to contribute to community health and rehabilitation services.

This academic accomplishment showcases their commitment to expanding knowledge beyond the clinic, taking a proactive step toward creating a safer and healthier society. We proudly acknowledge their enthusiasm and dedication to learning topics that support holistic patient care.

This achievement demonstrates the students' devotion as well as their desire to learn more about important facets of physiotherapy, including joint biomechanics and the movement science in healing and rehabilitation. Our students' desire to remain at the forefront of their area and their enthusiasm for learning are demonstrated by their completion of this specialized course.

Highlights of the Course:

The NPTEL course offered a thorough comprehension of:

- *Underlying biomechanical concepts and how they relate to joint motion.*
- *Human Movement Science and use in the management of musculoskeletal conditions and other Physiotherapeutic conditions.*
- *How movement and rehabilitation techniques are related.*

Why This Achievement Is Important:

The students' academic and professional skill sets are greatly enhanced by this course. Our students have given themselves cutting-edge knowledge that will be extremely useful as they advance in their clinical and academic careers by finishing the NPTEL course. This demonstrates their ongoing attempts to widen their perspectives and make a significant contribution to the physiotherapy industry.

Recognizing Our Successors:

*We would like to sincerely congratulate the **30 students** who have finished this demanding and rewarding course. They inspire their peers and the entire department with their **diligence**, **dedication,** and **willpower**.*

Looking Ahead:

The Physiotherapy Department is committed to creating an atmosphere that promotes both academic success and ongoing professional growth. We anticipate that more students will enroll in these enlightening programs and succeed even more in their academic and professional endeavors.

Once again, congratulations to our BPT2022, BPT2023 and BPT2024 batch for their outstanding achievement.

Acknowledgement

We extend our heartfelt gratitude to everyone who contributed to the creation of this newsletter themed ***"Holistic Healing: Integrating Mind, Body & Movements."*** *This edition reflects our collective vision of physiotherapy as a science that not only focuses on the physical body but also embraces the emotional, cognitive, and social aspects of health.*

We express our sincere appreciation to our respected faculty members for their constant guidance, expert mentorship, and inspiring commitment to academic excellence. Their encouragement has enabled us to explore innovative concepts and present meaningful insights related to holistic wellness and therapeutic movement.

We also thank our enthusiastic students whose creativity, teamwork, and dedication played a vital role in bringing this publication to life. Their active involvement highlights the growing passion for comprehensive and patient-centered care within our department.

A special mention goes to the institution's leadership for providing the right platform, resources, and unwavering support that allow us to learn, grow, and share knowledge beyond the classroom.

Together, we aim to promote a deeper understanding of how harmonious integration of mind, body, and movement can uplift the quality of life for individuals and communities.

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