

News Letter

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*For the Month of
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DEPARTMENT OF PHYSIOTHERAPY
SCHOOL OF ALLIED HEALTH SCIENCES
SWAMI VIVEKANANDA UNIVERSITY

About The University

Swami Vivekananda University was established in the year 2019 by Swami Vivekananda Group of Institutions (RERF) and over the last couple of years has grown in rapid strides to transform it into a reputed University. RERF is lead educational conglomerate in the state of West Bengal and leading Private-sector Educational Group with over 28 institutions dedicated to impart demand-driven education in Pure and Applied Science, Engineering, Technology, Management, Agriculture, Life Science, Allied Health Science, Humanities and Social Sciences, Journalism and Mass communication and related areas with high quality consciousness in various Under graduate, Post Graduate and Doctoral programs.



Swami Vivekananda University (SVU) aims to actualize Swami Vivekananda's educational vision of life building, and character-making education by combining the best elements of the East and the West. He envisioned an educational system wherein the rich cultural and spiritual heritage of our country with its hoary tradition of values like sacredness of knowledge, shraddha, devotion to truth, etc., would be blended with modern science, and predominantly western values like scientific temper, rationality of outlook, fearless and objective investigation into the nature of the physical world, technological skill, work efficiency, team work, etc. Swami Vivekananda's emphasis on man-making and character- building education is always being kept in view in all the programs and courses of study in the University bearing his hallowed name.

In the direction of thought of the Hon'ble Chairman's dream – Excellence -Innovation- Entrepreneurship – the University has taken several new educational initiatives in the recent past. The prime focus continues to drive us towards achieving increased standard of education and wider research outreach program. It is imperative, therefore, to be both creative & innovative in the approach to lead the University towards a University of Excellence. The University is established through the Act no. XV of 2019 of the State Legislature of West Bengal in the year 2019 w.e.f 5th December 2019 and subsequently enlisted by the University Grant Commission in the year 2020 as a State Private University. The University from inception keeping a self-compliance of quality standard so as to comply accreditations immediately after becoming eligible on completion of graduation of batches. This is in place through its own Internal Quality Assurance Cell (IQAC).

Located in its sprawling 12 acres lush 'Green Campus' at the Township of Barrackpore with a smooth tripartite connectivity of rail-road-air, within 15 kilometres from Airport, little distance from the junction point Wireless more of Barrackpore-Barasat and Kalyani Expressway, in a close vicinity from Barrackpore railway station, the University already attains a strength of over 2000 + students pursuing various graduate and post graduate programs including around 150 research scholars only in its second session. The Campus has an ideal educational ambience with Classrooms, Laboratories, Auditorium, Smart Classrooms, Seminar Halls, Conference Halls, Computer Centre, Central Library, Gymnasium, Store and Canteen with campus WI Fi connectivity.

From the Vice Chancellor's Desk



It is indeed a privilege to be at the forefront of an emerging university, our SVU. It is a matter of pride and satisfaction that ever since the inception in 2020, SVU has been striving for excellence in Higher Education, Research and Extension activities, Gratitude to the guidance of hon'ble Chancellor and thanks to the efforts of our Colleagues, the University's Undergraduate, Post-graduate, and Doctoral Programs in the areas of Engineering, Management, Agriculture, Computer Science, Life Sciences, Allied Health Science, Humanities and Social Sciences.

Our research programs range across all disciplines and total commitment is essential to achieve the goals. As we look to the future, one thing is certain - technology and knowledge will be key resources, most sought after within the country and around the world, Therefore, it is our paramount duty to help generate ideas that will benefit society, and to educate and train people to work in fields where they will be valued for their specialized knowledge. Our acumen to research, communicate and solve issues is to be improved upon from time to time. To meet these challenges, alliances with research institutions, partnership with Government and other agencies are to be undertaken expeditiously. We should leave no stone unturned to ensure the quality of our academic programs and excellence of our teaching, learning and research.

This is the byproduct of dedication and concerted efforts from all corners. In the rapidly evolving society of today, it has become more important than ever for the University to adapt, evolve and be the cornerstone of creating knowledge, The excellence of the University has always come from the individual strengths of our extremely diverse members. With many more miles to go, let us shoulder the responsibility and work together to take this institution to greater heights.

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 a 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

Physiotherapy, as a branch of rehabilitative medicine, focuses on helping patients maintain, recover, or enhance their physical abilities. Physiotherapists remediate impairments and disabilities while promoting mobility and movement potential through provisional diagnosis and physical interventions. High quality physiotherapy education is essential for this post - modern era. People require rehabilitation in different aspects of life. A specialized physiotherapist is well equipped to cater to such needs. The Department of Physiotherapy was established in the year 2020 to provide quality education interlaced with hands-on experience to undergraduate Bachelor of Physiotherapy students and Master of Physiotherapy Programme commenced in the year of 2024 to impart internationally accepted education and training in Physiotherapy program.



From the HOD's Desk



Dr. Sourav Mitra (PT)
Assistant Professor & In-Charge,
Department of Physiotherapy

Welcome to Department of Physiotherapy, a department that focuses on opportunity and achievement, a place where students are encouraged and supported to excel. Keeping the very fact in mind the department with the support of it's able faculty members, visionary management and excellent and extensive infrastructure entrenches perseverance and a never-say-die spirit from academics to co-curricular activities in the heart of every student to not only making them good physiotherapists but brilliant human beings.

Physiotherapists are key players in the health care system today. Physiotherapy is a healthcare profession that is primarily concerned with remediation of impairments and disabilities and the promotion of mobility, functional ability, quality of life and movement potential through examination, evaluation, diagnosis and physical intervention. They help in restoring and improving movements, keeping patients healthy, fit and active thereby improving the quality of life. They also play an important role in avoiding surgery and long-term use of medications.

Faculty Members of Physiotherapy Department



Dr. Sourav Mitra (PT)
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Dr. Gourab Jyoti Roy (PT)
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Dr. Sunayana Ghosh Dostider (PT)
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Dr. Sanhita Bose (PT)
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Celebrating Student Achievement: Successful Completion of NPTEL Course

- **Venue:** Swami Vivekananda University Campus

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

BPT2023 Batch: Out of the cohort, 17 students have finished the NPTEL course "**Biomechanics of Joints and Orthopaedic Implants**".



**BPT2022 Batch: There is 3 students successfully completed NPTEL Course
(Introduction to Exercise Physiology & Sports Performance)**



This achievement demonstrates the students' devotion as well as their desire to learn more about important facets of physiotherapy, including joint biomechanics and the function of orthopaedic implants 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.
- ✓ Orthopedic implants' construction and use in the management of musculoskeletal conditions.
- ✓ How biomechanics 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 17 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 batch for their outstanding achievement

Honouring Scholarly Contributions: Current Works by Our Teachers and Students

With great pleasure, we announce the latest academic works from our physiotherapy department. As evidence of their dedication to academic quality and clinical innovation, our committed faculty and students have made significant contributions to research that enhances the field of physiotherapy.

Physiotherapy Faculty Research Update:

Dr. Sourav Mitra (PT)

1. **Sourav Mitra**, MS Anwar, Satyen Bhattacharyya. Effectiveness of core stability exercises along with swiss ball for improvement of trunk control in stroke patients: A pilot study. *International Journal of Multidisciplinary Trends* 2024; 6(12): 52-54, DOI: <https://doi.org/10.22271/multi.2024.v6.i12a.537>
2. **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>
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>
4. **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>
5. **Sourav Mitra**, Md. Zulfaquar Khan, Abhiprata Naru. Pain unplugged: Evaluating cupping therapy in carpal tunnel syndrome – A single case study, *International Journal of Applied Research* 2024; 10(12): 262-264, DOI: <https://dx.doi.org/10.22271/allresearch.2024.v10.i12d.12241>



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Effectiveness of core stability exercises along with swiss ball for improvement of trunk control in stroke patients: A pilot study

Sourav Mitra, MS Anwar and Satyen Bhattacharya

DOI: <https://doi.org/10.22271/multi.2024.v6.i12a.537>

Abstract

Background: Good trunk stability is essential for hemiplegic patients recovering from stroke in order to maintain balance and use their extremities during functional tasks. Trunk muscle has an important role in predicting the functional prognosis of stroke recovery. Despite their limitations in terms of applicability, core stability exercises along with Swiss ball increase trunk muscle activation and trunk control in stroke patients.

Objectives: The purpose of this study was to examine the effectiveness of core stability exercises along with swiss ball for improvement of trunk control in stroke patients.

Materials and Methods: Totally, 15 samples were selected using simple random sampling techniques, who had stroke with impaired trunk control. These patients received core stability exercises along with swiss ball for four weeks. The effectiveness of 4 weeks through treatment session. Data were



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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

Sourav Mitra, Satyen Bhattacharya, Amartya Mallick and Priyanka Das

DOI: <https://dx.doi.org/10.33545/26649926.2025.v7.i1a.266>

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.



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Core and balance: Advancing rehabilitation for multiple sclerosis patients

Khairul Islam, Sourav Mitra, Tajmina Parbin and Gourab Jyoti Roy

DOI: <https://dx.doi.org/10.33545/26649926.2025.v7.i1a.263>

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



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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.

Dr. Sunayana Ghosh Dostider (PT):


1. **Sunayana Ghosh Dostider.** Balance rehabilitation treatment in patients with parkinson's disease: A randomized controlled pilot study. International Journal of Advance Academic Studies. IJAAS <https://doi.org/10.33545/27068919.2025.v7.i1b.1339>. 2025; 7(1): 103-105.

2. **Sunayana Ghosh Dostider.** Pilates beyond fitness: Efficacy in chronic low back painA single-case perspective. International Journal of Applied Research. IJAR 2024; 10(12): 254-256. <https://dx.doi.org/10.22271/allresearch.2024.v10.i12d.12239>

3. **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>

4. Sunayana Ghosh Dostider, Sourov Saha. A pilot study on effectiveness of Kinesio taping on foot pain at its worst and at morning in plantar fasciitis patients. International Journal of Multidisciplinary Trends. <https://doi.org/10.22271/multi.2024.v6.i12a.534>

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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.

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Pilates beyond fitness: Efficacy in chronic low back pain-A single-case perspective

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Abstract
Background: Lower back pain that persists for more than 12 weeks or three months after an acute low back injury or underlying cause is defined as Chronic low back pain (CLBP).

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A pilot study on effectiveness of Kinesio taping on foot pain at its worst and at morning in plantar fasciitis patients

Sunayana Ghosh Dostider and Sourov Saha

DOI: <https://doi.org/10.22271/multi.2024.v6.i12a.534>

Abstract
Background: Plantar fasciitis (PF) results from degenerative changes in plantar fascia, particularly observed near its attachment to calcaneal tuberosity. Patients may present with heel pain with their first steps in the morning or after prolonged sitting, and sharp pain with palpation of the medial plantar calcaneal region. Therapeutic taping is a common clinical intervention facilitating pain reduction, joint support, proprioception, and muscle tone normalization. Kinesio tape is an elastic tape having unique qualities like elasticity, adherence, texture and recoil.
Methods: In this single-blinded pilot study, 11 samples were applied Kinesio tape for 4 sessions, twice

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Pulses of progress: Russian current therapy in managing knee osteoarthritis

Sunayana Ghosh Dostider

DOI: <https://dx.doi.org/10.33545/26649926.2025.v7.i1a.264>

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, edema, 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.

Dr. Sanhita Bose (PT):

1. **Sanhita Bose.** Pinpoint precision: Exploring dry needling as a game-changer for golfer's elbow, International Journal of Applied Research, ISSN Print: 2394-7500, ISSN Online: 2394-5869, Impact Factor (RJIF): 8.4, IJAR 2024; 10(12): 250-253.

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.

3. **Sanhita Bose.** Unlocking flexibility: The effects of cupping therapy on hamstring mobility and muscle function. International Journal of Biology Sciences 2025;7(1):1316. DOI: 10.33545/26649926.2025.v7.i1a.265, P-ISSN: 2664-9926, E-ISSN: 2664-9934

4. **Sanhita Bose.** Comparison of dry needling and dry cupping for Pelvic positional fault caused by quadratus lumborum Myofascial trigger points, International Journal of multidisciplinary trends, E-ISSN: 2709-9369, P-ISSN: 2709-9350, IJMT 2024; 6(12): 4851, DOI: <https://doi.org/10.22271/multi.2024.v6.i12a.536>.

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Comparison of dry needling and dry cupping for pelvic positional fault caused by quadratus lumborum myofascial trigger points

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Abstract
Pelvic positional faults, often associated with myofascial trigger points (MTrPs) in the quadratus lumborum (QL) muscle, are a significant source of discomfort and functional impairment. This study investigates the comparative effectiveness of dry needling (DN) and dry cupping (DC) as therapeutic interventions for addressing pelvic asymmetry caused by QL MTrPs. Despite both modalities being widely employed for managing musculoskeletal pain and dysfunction, limited evidence directly compares their impact on correcting pelvic positional faults and alleviating associated symptoms. The study conducted with 60 participants exhibiting pelvic asymmetry linked to QL MTrPs. Subjects were randomized into two groups: DN (n=30) and DC (n=30). Both groups received three sessions over two weeks. Outcomes were assessed pre- and post-intervention using pelvic inclination angle (PIA) measurement for positional correction, the Visual Analog Scale (VAS) for pain, and the Oswestry Disability Index (ODI) for functional improvement. Results revealed that both DN and DC significantly reduced pain, improved pelvic alignment, and enhanced functional capacity. However, the DN group demonstrated a more pronounced reduction in PIA and VAS scores, indicating superior efficacy in targeting deep MTrPs and restoring pelvic symmetry. DC, while effective, appeared to provide greater benefits in superficial tissue relaxation and pain modulation. No significant adverse events were reported in either group. This study concludes that while both DN and DC are effective for managing pelvic positional faults associated with QL MTrPs, DN may offer superior outcomes in positional correction and pain relief. Further research is recommended to explore long-term effects and patient-specific considerations.

Keywords: Dry needling (DN), Dry cupping (DC), pelvic positional fault

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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

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Pinpoint precision: Exploring dry needling as a game-changer for golfer's elbow

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Abstract
Background: Golfer's elbow is a prevalent condition characterized by pain and tenderness on the inner side of the elbow, often impacting individuals who engage in repetitive wrist and forearm activities. Dry needling (DN) is a therapeutic technique that involves the insertion of fine needles into myofascial trigger points to relieve pain and enhance function. This review examines the clinical outcomes and efficacy of dry needling in alleviating pain and improving functional performance in patients with golfer's elbow.
Objective: To assess the effectiveness of dry needling in reducing pain and improving functional outcomes in patients suffering from golfer's elbow.
Methods: A comprehensive review of clinical trials and studies focusing on the impact of dry needling on pain reduction, functional improvement, and overall recovery in golfer's elbow patients was conducted. The review included studies that measured outcomes using pain scales, functional assessments, and recovery times.
Results: The review indicates that dry needling can effectively reduce pain and improve functional outcomes in patients with golfer's elbow. Statistical analysis demonstrated significant improvements in pain levels and functional scores post-treatment, with most patients reporting enhanced recovery and reduced symptoms.
Conclusion: The findings suggest that dry needling is an effective adjunct therapy for golfer's elbow, offering significant benefits in pain relief and functional recovery, thereby improving patients' quality of life. Further research is recommended to establish standardized treatment protocols.

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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.

Gourab Jyoti Roy:

1. **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.

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**, Fatima Saeed and Khairul Islam. BMI and physical fitness relationship among students. International Journal of Applied Research. IJAR 2024; 10(12): 245-249. P-ISSN: 2394-7500 [Impact Factor (RJIF): 8.4]

4. **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.

5. **Gourab Jyoti Roy** and Saher Ansari. The efficiency of cardiac rehabilitation on cardiopulmonary health in elderly populations. International Journal of Multidisciplinary Trends. IJMT 2024; 6(12): 38-40. E-ISSN: 2709-9369.

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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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DOI: <https://doi.org/10.33545/27068919.2025.v7.i1b.1340>

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 response. IFC was first offered as a treatment adjunct.

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

Gourab Jyoti Roy, Urusia Parveen and Fatima Saeed

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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



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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(61.1%) 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



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BMI and physical fitness relationship among students

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Abstract

Background: The ability to perform daily tasks with vigor and alertness without experiencing excessive fatigue and having enough energy to engage in leisure activities, as well as to handle a variety of unexpected situations and emergencies, is known as physical fitness. Adults are currently classified (categorized) into groups based on their anthropometric height/weight characteristics, which are defined by the body mass index (BMI). The purpose of BMI and physical fitness is to track their general health and wellbeing. Numerous advantages can result from regularly participating in physical fitness activities and maintaining a healthy BMI. It has been shown to boost vitality, lower the risk of chronic diseases, improve mental health, improve cardiovascular health, and even boost academic achievement. By researching this, we can find and create ways to encourage healthy behaviors and help college students lead balanced lives.

Aim: The current study's objective was to assess the correlation between college-bound students' body mass index and physical fitness.

Method: We looked for studies on physical activity, fitness, and overweight in adolescents aged 10 to 16 (cross-sectional studies) and in adolescents aged up to 24 (longitudinal studies) published in English in or after 2010 using the electronic academic databases PubMed, SportDiscus, WEB OF KNOWLEDGE, and Ovid.

Results: Three longitudinal studies and seven cross-sectional studies were included. Adolescent obesity, physical activity, and fitness were examined in just three studies, with varying degrees of success. Every other study examined the connection between fitness and overweight or being physically active and overweight. Physical activity was inversely correlated with being overweight, according to these studies. Similarly, all studies found a negative relationship between physical fitness and overweight. The relationship between BMI, fitness, and physical activity was found to have mediator and moderator effects. Overall, it is difficult to distinguish between being overweight and being physically inactive or unfit.



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The efficiency of cardiac rehabilitation on cardio-pulmonary health in elderly populations

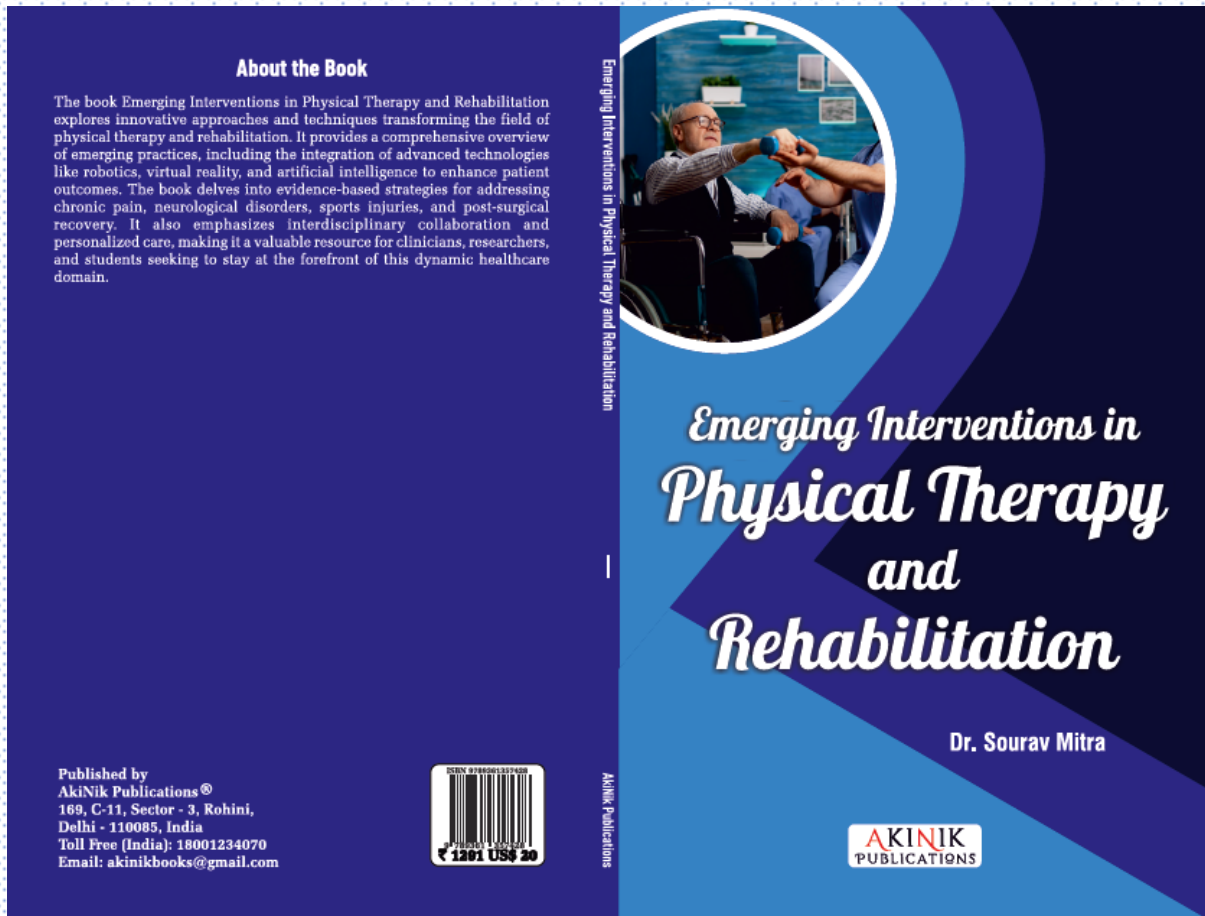
Gourab Jyoti Roy and Saher Ansari

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Abstract

Background: Cardiovascular mortality, morbidity, and all cause mortality can be decreased with a cardiac rehabilitation program. While pharmacotherapy can effectively modify many risk factors, exercise-based rehabilitation can improve patients' cardiorespiratory fitness, increasing functional capacity, mobility, and independence. Increased fitness is independently associated with improved quality of life in cardiac patients, and fitness is a good predictor of future cardiovascular events. In cardiac rehabilitation, increasing a patient's cardiopulmonary fitness is a crucial therapeutic goal. Several studies have demonstrated that cardiac rehabilitation lowers mortality and morbidity.

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