WORLD MEDITATION DAY 2025

Meditation as a Path to Global Harmony

The Book of Proceedings of the Global Conference

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Centre for Meditation Research
Faculty of Medicine
University of Colombo

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THE BOOK OF PROCEEDINGS OF THE GLOBAL CONFERENCE




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University of Colombo
Sri Lanka

Sri Lanka National Commission for UNESCO

Rekhi Foundation for Happiness USA

World Meditation Day 2025
The Book of Proceedings of the Global Conference

Aims and Scopes

World Meditation Day 2025 – The Book of Proceedings of the Global Conference provides a platform for sharing multidisciplinary insights on meditation. This peer-reviewed, open access publication features selected contributions from the global symposium, highlighting scientific, philosophical, and practical perspectives on the impact of meditation on health, education, and well-being.

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Centre for Meditation Research
Faculty of Medicine
University of Colombo
Sri Lanka
cmr@med.cmb.ac.lk

Formatting and Illustration by

Lakdinu Samaranayake
Project Manager
Centre for Meditation Research
Faculty of Medicine
University of Colombo
Sri Lanka
lakdinu@med.cmb.ac.lk
lscolombo0700@gmail.com

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ABSTRACT REVIEW PANEL

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University of Colombo

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Professor
Department of Zoology and Environment Sciences
Faculty of Science
University of Colombo

Board Member
Centre for Meditation Research
University of Colombo

Prof. Shiroma Handunnetti
Professor
Institute of Biochemistry, Molecular Biology and Biotechnology
University of Colombo

Board Member
Centre for Meditation Research
University of Colombo

Prof. Wasantha Gunathunga
Professor
Department of Community Medicine
Faculty of Medicine
University of Colombo

Board Member
Centre for Meditation Research
University of Colombo

Prof. Erandathie Lokupitiya
Professor
Department of Zoology and Environment Sciences
Faculty of Science
University of Colombo

Board Member
Centre for Meditation Research
University of Colombo

Prof. Dilshani Dissanayake
Professor
Depatment of Physiology
Faculty of Medicine
University of Colombo

Director
Centre for Meditation Research
University of Colombo

Prof. Sashika Manoratne
Head
Department of Management & Organization Studies
Faculty of Management & Finance
University of Colombo

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University of Colombo

Dr. Chamila Dalpatadu
Senior Lecturer
Department of Physiology
Faculty of Medicine
University of Colombo

Board Member
Centre for Meditation Research
University of Colombo

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Main Auditorium, UCFM Tower, Faculty of Medicine, University of Colombo
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8:10 – 8:15	**Welcome Speech:** **Prof. Dilshani Dissanayake** Director, Centre for Meditation Research
8:15 – 8:20	**Address by the Dean:** **Vidya Jyothi Prof. Vajira H.W. Dissanayake** Dean, Faculty of Medicine, University of Colombo
8:20 – 8:30	**Address by the Guest of Honor - Vice Chancellor:** **Prof. Indika Mahesh Karunathilake** Vice Chancellor, University of Colombo
8:30 – 8:40	**Address by the Chief Guest:** **Senior Prof. Prabhath Jayasinghe** Secretary General, Sri Lanka National Commission for UNESCO
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9:00 – 9:40	***Advanced meditation and the third wave of meditation research*** **Dr. Matthew D. Sacchet** Associate Professor and Director, Meditation Research Program, Harvard Medical School, USA
9:40 – 10:20	***Meditation for Global Harmony*** **Prof. Saamdu Chetri** Director, Yogananda School of Spirituality and Happiness, India/ Former Jt. Secretary of the PM office/ Founder director of the Gross National Happiness Centre, Bhutan/ Advisor to Rekhi Foundation for Happiness, USA
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Session Chairs: **Prof. Nirmalie Pallewatta** Board Member, Centre for Meditation Research
Dr. Jeevani Herath Deputy Director (Services), Centre for Meditation Research

11:00 – 11:20 ***Buddhist meditation and environmental harmony***
Prof. Erandathie Lokupitiya Board Member, Centre for Meditation Research

11:20 – 11:40 ***Nature as a mantra: How our environment can help us begin a meditation practice***
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Session Chairs: **Prof. Shiroma Handunnetti** Board Member, Centre for Meditation Research
Prof. Sashika Manoratne Board Member, Centre for Meditation Research

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Dr. Iresha Goonesinghe Specialist Cardiologist, California, USA

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Ms. Lisa Forde Vice President, Meditation Association of Australia/ Founder, Australian Centre for Meditation and Mindfulness

14:10 – 14:30 ***Meditation as a tool for global peace: The multiple ripples approach***
Prof. Wasantha Gunathunga Advisor and Board Member, Centre for Meditation Research/ Registered Meditation Teacher, Meditation Association of Australia

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Moderators: **Vidya Jyothi Prof. Vajira H.W. Dissanayake** Dean, Faculty of Medicine
Prof. Dilshani Dissanayake Director, Centre for Meditation Research

15:30 - 16:00 **Title** - ***Evidence-based approach for Meditation as a tool for Global Peace***

16:00 – 17:00 **Tea, Fellowship and Poster Viewing**

MESSAGE FROM THE VICE CHANCELLOR

Prof. Indika Mahesh Karunathilake
Vice Chancellor
University of Colombo
Sri Lanka

It is with great pleasure that I convey my greetings to all participants of the Second World Meditation Day Global Conference 2025, held at the Faculty of Medicine, University of Colombo, under the theme "Meditation as a Path to Global Harmony." I warmly commend the Centre for Meditation Research for organizing this timely and intellectually rich conference in collaboration with UNESCO and the Rekhi Foundation, marking World Meditation Day with purpose and vision.

At a time when the world is confronted with complex challenges—ranging from mental health concerns to social fragmentation and environmental crises—the exploration of meditation as both a contemplative practice and a scientifically grounded intervention assumes profound relevance. The University of Colombo takes pride in supporting scholarly initiatives that bridge ancient wisdom with contemporary research, and that foster dialogue across medicine, neuroscience, education, ethics, and sustainability.

This conference exemplifies the University's commitment to advancing knowledge that is not only academically rigorous but also socially transformative. By bringing together international scholars, practitioners, policymakers, and emerging researchers, the programme reflects a holistic approach to human wellbeing—one that recognises inner peace as a foundation for collective harmony and responsible global citizenship.

I acknowledge with appreciation the distinguished keynote speakers, invited experts, and panelists whose contributions enrich these proceedings, as well as the dedication of the academic and organizing committees whose efforts ensured the success of this event. I also extend my gratitude to all participants for their active engagement and commitment to inquiry and practice.

It is my sincere hope that the insights and research presented in this volume will continue to inform education, healthcare, public policy, and community life, both nationally and globally. May these proceedings serve as a lasting testament to the University of Colombo's role in nurturing knowledge that contributes to peace, wellbeing, and harmony in our world.

MESSAGE FROM THE DEAN

Vidya Jyothi Prof. Vajira H.W. Dissanayake
Dean
Faculty of Medicine
University of Colombo

It is with great pleasure and a deep sense of purpose that I extend my warmest greetings to all participants of the 2nd World Meditation Day Global Conference 2025, held under the inspiring theme "Meditation as a Path to Global Harmony." As we gather here at the Faculty of Medicine, University of Colombo - joined by partners (especially UNESCO), scholars, practitioners, and global leaders - we celebrate not only an event, but a collective commitment to advancing peace, wellbeing, and scientific understanding.

Meditation, once regarded primarily as a spiritual discipline, is today firmly recognised as a powerful tool with profound implications for mental health, emotional resilience, neurobiological functioning, and social harmony. The convergence of ancient wisdom with modern scientific inquiry offers a unique opportunity to shape a healthier, more compassionate world. This conference embodies that vision—creating a platform where rigorous research, clinical practice, and contemplative traditions come together to deepen our understanding and expand our impact.

I am honoured to welcome our keynote speakers, Dr. Matthew D. Sacchet and Prof. Saamdu Chetri, whose contributions to the science and practice of meditation illuminate pathways toward individual and collective wellbeing. I also commend the Centre for Meditation Research for its leadership in bringing this conference to fruition and for fostering a culture of inquiry that bridges disciplines and communities.

As we reflect, learn, and engage throughout today's sessions, let us reaffirm our shared responsibility to cultivate inner peace as a foundation for global peace. May the insights generated here inspire innovative approaches in education, healthcare, policy, and daily life. Most importantly, may they empower each of us to embody mindfulness and compassion in all that we do.

I wish all participants a meaningful, enriching, and transformative conference experience.

MESSAGE FROM THE DIRECTOR CMR

Professor Dilshani Dissanayake
Director
Centre for Meditation Research
University of Colombo

It gives me great pleasure to send this message for the proceedings of the Second World Meditation Day Global Conference 2025, organized by the Centre for Meditation Research, University of Colombo, in collaboration with UNESCO and Rekhi Foundation, USA. The conference commemorates World Meditation Day, a global initiative dedicated to promoting meditation as a pathway to inner peace, mental well-being, and collective harmony.

The theme of this year's conference, "Meditation as a Path to Global Harmony," reflects our shared aspiration to explore how contemplative practices can contribute meaningfully to individual well-being, environmental sustainability, and global peace.

The conference program was thoughtfully designed to bring together diverse perspectives on medicine, neuroscience, spirituality, environmental studies, and contemplative traditions. The inaugural session with distinguished addresses from academic and national leaders reaffirms the relevance of meditation within both scientific and societal frameworks.

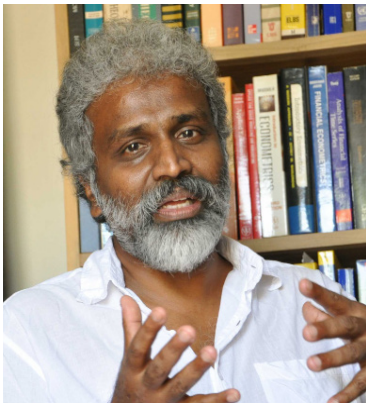
The keynote addresses by world-renowned researchers provide global insights into the evolving landscape of meditation research and practice—ranging from advances in contemplative neuroscience to the integration of meditation into models of happiness, governance, and human flourishing. The guided meditation session that follows offers participants a direct experiential dimension, reinforcing the conference's commitment to balancing theory with practice.

The two symposia, focusing on Meditation for Environmental Harmony and Inner Peace for Global Harmony, facilitate rich interdisciplinary dialogue. These sessions highlight how meditative practices can nurture ecological consciousness, ethical responsibility, personal transformation, and collective peace. Panel discussions and audience interactions further enrich the discourse, encouraging critical reflection and shared learning. Poster presentations showcase emerging research and innovative initiatives, particularly from early-career researchers, underscoring the growing academic engagement with meditation studies.

On behalf of the Centre for Meditation Research, I extend my sincere gratitude to our keynote speakers, invited speakers, session chairs, moderators, and panelists for their invaluable contributions. I also wish to thank the Country Representative of UNESCO, the Vice Chancellor of the University of Colombo, the Dean of the Faculty of Medicine, and our collaborators for their support, guidance, and encouragement. My appreciation extends to the organizing committee, academic reviewers, volunteers, and staff whose dedication ensured the meticulous organization of this event. We are also grateful to all participants—researchers, practitioners, students, and members of the public—whose presence and engagement add life to the conference.

It is our hope that the ideas, reflections, and research presented in these proceedings will inspire continued inquiry, collaboration, and application of meditation for the betterment of individuals and societies alike. May this collective effort contribute to nurturing inner peace and, in turn, global harmony.

MESSAGE FROM THE SECRETARY GENERAL
Sri Lanka National Commission for UNESCO



Senior Prof. Prabhath Jayasinghe
Secretary General
Sri Lanka National Commission for UNESCO

It is a pleasure for the Sri Lanka National Commission for UNESCO to contribute this message to the proceedings of the Global Conference on World Meditation Day. Although the day had been observed informally by various communities for several years, it gained official international status only recently. In December 2024, the United Nations General Assembly formally declared 21 December as World Meditation Day, following a resolution introduced by a core group of Member States, including Sri Lanka. The declaration recognizes meditation's potential contribution to health, mental well-being, and the cultivation of inner peace.

I commend the Faculty of Medicine, University of Colombo for commemorating this day in a truly intellectual manner through a global research conference. I believe that by grounding the study of meditation in scientific research and philosophical reflection, the conference exemplifies the highest standards of scholarly engagement. Such work helps ensure that meditation is understood with depth and integrity rather than oversimplification or commercialization.

The National Commission for UNESCO warmly appreciates the efforts of the organizers, researchers, keynote speakers, and panelists whose work strengthens Sri Lanka's presence in global meditation research and enriches the intellectual foundations of peace and human well-being.

MESSAGE FROM CO-CHAIRS

Emeritus Prof. Saroj Jayasinghe
Board Member
Centre for Meditation Research
University of Colombo

Prof. Nirmalie Pallewatta
Board Member
Centre for Meditation Research
University of Colombo

We are honored to provide this message on this occasion of the 2nd World Meditation Day Global Conference, organized by the Centre for Meditation Research (CMR) of the Faculty of Medicine, University of Colombo. The event coincides with and celebrates the UN's annual World Meditation Day held on the 21st December.

The theme of our Conference is "Meditation as a Path to Global Harmony". We will explore the role meditation could play in achieving harmony in a world affected by climate crises, social upheaval, geopolitical tensions, and increasing wars and conflicts. These challenges are particularly serious in countries of the Global South, including Sri Lanka.

Recently, there has been a call for "Transformative Change" to address the root causes of environmental problems and social disruptions. The question we pose is whether meditation practices can offer a solution by enabling transformative change in individuals and communities.

CMR researchers are exploring the effects of meditation on connectedness to the natural environment, personal carbon footprints, and the promotion of social harmony. The list of internationally acclaimed speakers at this event reflects this diversity of topics central to CMR's mission.

We hope that the momentum created by the 1st and now the 2nd World Meditation Day event will be carried forward. This will help establish evidence on the profound changes meditation brings about and to enable a wider section of the human population to benefit from it.

MESSAGE FROM THE CONFERENCE SECRETARY

Dr. Kumarangie Vithanage
Deputy Director (Research)
Centre for Meditation Research
University of Colombo

It is with great honor and excitement that I welcome you to the 2nd World Meditation Day Global Conference 2025, organized by the Center for Meditation Research (CMR), Faculty of Medicine, University of Colombo. This event stands as a testament to our shared commitment to exploring and harnessing the transformative power of meditation as a path to global harmony.

Meditation has long been recognized as a profound practice that fosters inner peace, mental clarity, and emotional resilience. In an era marked by rapid technological advancements and global challenges, integrating such timeless wisdom into our modern lives is not just beneficial but essential. Our theme for this conference, "Meditation as a Path to Global Harmony," serves as a guiding light in our collective journey towards building a more peaceful and interconnected world.

This year, we are privileged to host an array of distinguished speakers and experts from various disciplines, each bringing unique insights and contributions to the dialogue on meditation and its impact on society. Their research and experiences offer invaluable perspectives that will enrich our understanding and practice.

I invite all participants to engage wholeheartedly in the discussions, workshops, and networking opportunities that this conference provides. It is through our interactions and shared learning that we will forge new pathways and strengthen the bonds within the global meditation community.

I would like to extend my deepest gratitude to the organizing committees, and volunteers whose dedication and hard work have made this conference possible. Your unwavering support and passion are the backbone of our success.

May this conference inspire meaningful change and foster a renewed sense of unity and purpose in our pursuit of global harmony.

Thank you for joining us on this important journey.

MESSAGE FROM THE EDITOR

Dr. Jeevani Herath
Deputy Director (Services)
Centre for Meditation Research
University of Colombo

Meditation is a time-honored practice with the potential to transform the mind, body, and society. Beyond promoting individual well-being, meditation fosters emotional balance, resilience, and social harmony, offering a meaningful pathway toward collective global peace. The Second World Meditation Day Global Conference 2025, organized by the Centre for Meditation Research, Faculty of Medicine, University of Colombo, in collaboration with UNESCO and the Rekhi Foundation, brings together scholarly research and contemplative practice under the theme "Meditation as a Path to Global Harmony."

This volume presents the proceedings of the conference, capturing the latest evidence, insights, and experiences in meditation research and practice. The contributions span empirical studies, theoretical perspectives, and contemplative case reports. They illustrate meditation's impact on attention, cognitive function, emotional regulation, stress reduction, neuroinflammatory processes, motor function, and quality of life across diverse populations, including students, healthcare professionals, individuals with chronic conditions, and monastic practitioners. Several studies bridge traditional canonical wisdom with modern scientific investigation, demonstrating how practices such as Ānāpānasati meditation cultivate mindfulness, concentration, emotional resilience, and both mundane and transcendental well-being. Breath-based, loving-kindness, and mind-body movement meditations further reveal benefits for mental health, interpersonal relationships, and organizational cohesion.

Collectively, these works highlight meditation's capacity to nurture inner balance, compassion, ethical awareness, and social connectedness—qualities essential for addressing the complex challenges of our interconnected world. They provide strong support for integrating meditation into educational, clinical, and organizational contexts, thereby promoting both personal flourishing and societal harmony.

It is our hope that this collection will inspire ongoing research, reflection, and practice, encouraging wider adoption of meditation as a holistic approach to human development. By cultivating mindfulness, empathy, and ethical engagement, meditation emerges not only as a tool for personal well-being but as a unifying pathway toward a more compassionate, resilient, and harmonious global community.

INTRODUCTION TO THE KEYNOTE SPEAKER I

Dr. Matthew D. Sacchet

Sc.B. (Brown University)
PhD (Stanford University School of Medical Science)

Associate Professor
Department of Psychiatry
Harvard Medical School

Director
Meditation Research Program
Massachusetts General Hospital
(Mass General)

https://orcid.org/0000-0001-7314-8266

Dr. Matthew D. Sacchet, Ph.D., is an Associate Professor and the Director of the Meditation Research Program at Harvard Medical School and Massachusetts General Hospital (Mass General). Dr. Sacchet and his team study advanced meditation: states, stages, and endpoints of meditative development and mastery. He has authored more than 150 publications that have been cited more than 10,000 times, and his work has been presented more than 170 times at international, national, regional and local venues including at Cambridge, Harvard, Oxford, Princeton, Stanford, and Yale Universities, and the United Nations. His research has appeared in leading scientific journals in the mind and brain sciences and psychiatry, including *American Journal of Psychiatry*, *Biological Psychiatry*, *Cerebral Cortex*, *JAMA Psychiatry*, *Journal of Neuroscience*, *Molecular Psychiatry*, *Nature Mental Health*, *Neuropsychopharmacology*, *Neuroscience & Biobehavioral Reviews*, *Proceedings of the National Academy of Sciences*, and *World Psychiatry*. He has received generous support from numerous foundations and repeat awards from federal funding bodies in the United States, including the National Institutes of Health and National Science Foundation. His work has appeared in many major media outlets where it has been viewed many millions of times, including in *10% Happier, CBC*, *CBS*, *Forbes*, *Men's/Women's Health*, *NBC*, *New Scientist*, *NPR*, *Scientific American*, *TIME*, *Vox*, and *Wall Street Journal*, and *Forbes* named him one of its "30 Under 30." Dr. Sacchet is an Associate Editor of the leading meditation academic journal *Mindfulness*, and a Research Fellow of the Mind & Life Institute. He has been nominated for mentorship awards five times in the last five years and his prior mentees have matriculated into many top global graduate programs.

The mission of the Meditation Research Program at Mass General and Harvard is to establish a scientific understanding of, and also to share, advanced

meditation. The Program's research spans and integrates diverse fields across clinical science and medicine, computer/computational science, engineering, epidemiology, neuroscience, philosophy, psychology, and religious studies. For example, the Program's studies include multidisciplinary investigation of meditative development and meditative endpoints toward a more comprehensive understanding of the trajectories and outcomes of advanced meditation. The Program has published landmark research in a number of domains including in diverse theoretical aspects of advanced meditation research, and empirically including contributing first studies of advanced absorption ("jhana") and insight meditation, meditative endpoints (including cessations of consciousness), and the epidemiology and public health implications of altered states of consciousness. This research promises to contribute to improving individual well-being and the collective health of society by informing the development of meditation-based interventions that are more efficient and impactful. Toward this end, the Program develops and shares advanced meditation training and educational materials for broad dissemination.

Please see the Meditation Research Program's website for more information: https://meditation.mgh.harvard.edu

KEYNOTE ABSTRACT I

Advanced Meditation and the Third Wave of Meditation Research

Dr. Matthew D. Sacchet

Mindfulness has gained considerable momentum globally as a tool to improve health and wellbeing. Beyond mindfulness, advanced meditation includes states, stages, and endpoints that result from ongoing practice and mastery of meditation. Matthew D. Sacchet Ph.D. (Harvard/Mass General) will provide an overview of current directions in advanced meditation research that characterize the third wave of meditation research. The study and practice of advanced meditation promise incredible new opportunities for elevating human potential in diverse clinical and non-clinical contexts. See the Meditation Research Program website for more information: https://meditation.mgh.harvard.edu

INTRODUCTION TO THE KEYNOTE SPEAKER II

Prof. Saamdu Chetri

B.Com (University of Punjab)
M.Com (University of Osmania)
PhD in Commerce

Director
Yogananda School of Spirituality
and Happiness,
Shoolini University

Former Jt. Secretary
Prime Minister of Bhutan

Advisor to Rekhi Foundation for
Happiness, USA

Author
Speaker
Buddha Peace Prize holder

https://orcid.org/0000-0003-1487-6372

Prof. Saamdu Chetri is the Director/Dean of the Yogananda School of Spirituality and Happiness at Shoolini University. With over 43 years of professional experience, he has made significant contributions in the fields of development, private sector engagement, good governance, and the teaching of happiness and Gross National Happiness (GNH).

Prof. Chetri is an accomplished author and editor, having published six books and contributed chapters to numerous others. His interests encompass mindfulness, happiness, environmental issues, climate change, and nature. Over 18 years, he devoted himself to development work with the Swiss Agency for Development Cooperation and Helvetas in Bhutan. In recognition of his contributions, he was named one of Bhutan's 100 prominent figures in 2008 and was awarded the Buddha Peace Prize in 2016 by the Samata Sahitya Academy. Additionally, he became a Life Member of the Indian Management Association in 1998.

In his role as Joint Secretary for five years under the Prime Minister of Bhutan, Prof. Chetri established a Good Governance System for the Prime Minister's Office in 2008. In 2013, he spearheaded the establishment of the GNH Centre, serving as its Executive Director for five years, significantly advancing the philosophy and practice of Gross National Happiness.

Known as the "Happiness Guru" by the BBC, Prof. Chetri has delivered talks at prestigious forums including the House of Commons in the British Parliament, the Senate in the Philippines, and various universities worldwide. His global influence extends through his engaging and insightful presentations on happiness and well-being.

KEYNOTE ABSTRACT II

Meditation for Global Harmony

Prof. Saamdu Chetri

In an era marked by geopolitical tensions, social polarization, and environmental instability, meditation emerges not merely as a personal wellness practice but as a vital pathway toward global harmony.

Meditation cultivates inner balance, emotional resilience, and clarity, enabling individuals and communities to navigate conflict with wisdom rather than reactivity. This keynote explores the transformative potential of meditation across personal, interpersonal, and societal dimensions, highlighting its relevance for peacebuilding in a fractured world.

At the individual level, meditation nurtures attention, compassion, and equanimity—qualities essential for reducing aggression, anxiety, and fear-driven responses. Neuroscientific research demonstrates that regular practice enhances emotional regulation, empathy, and perspective-taking, laying a foundation for peaceful living.

At the relational and community level, meditation strengthens our capacity to listen deeply, suspend judgment, and connect authentically with others. These capacities form the essence of mediation processes in families, institutions, and multicultural communities. By shifting the inner state of the mediator or participant, meditation reduces hostility and opens space for understanding, reconciliation, and mutual respect.

At the societal and global level, meditation-inspired principles have guided movements for peace, from Gandhian nonviolence to contemporary humanitarian diplomacy. As nations confront shared global challenges — climate change, forced migration, cultural conflict—meditation offers a framework for cooperative dialogue grounded in compassion and collective responsibility.

This keynote argues that meditation is not an escape from the world's problems but a disciplined practice for engaging them more humanely. By integrating meditation into education, leadership, healthcare, and community life, humanity can nurture a culture of harmony that transcends borders and identities. Meditation thus becomes both a personal refuge and a global strategy—awakening inner peace to cultivate outer peace.

Buddhist Meditation and Environmental Harmony

Prof. Erandathie Lokupitiya

B.Sc (University of Colombo)
M.Sc (University of Wyoming)
PhD (Colorado State University)

Professor in Environmental Science
Department of Zoology and
Environment Sciences
Faculty of Science
University of Colombo

Board Member
Centre for Meditation Research
Faculty of Medicine
University of Colombo

https://orcid.org/ 0000-0001-5085-3288

Human demand for natural resources has been increasing due to increased population growth and associated increase in their needs. As a result, overexploitation of natural resources has been happening at a greater rate than the rate at which the earth could naturally regenerate those. Human activities since the Industrial Revolution have disturbed the natural balance in our environment, leading to a plethora of environmental issues. Safeguarding our environment and maintaining mental and physical health of human beings have been central to determining possible remedial measures. For continued environmental harmony, people need to be concerned about sustainable utilization of natural resources while minimizing waste.

Buddhism as a philosophy promotes mindfulness, compassion and loving kindness, which leads to an inherent concern about one's surroundings, ensuring less harm to the environment including all living beings. The core of Buddhist meditation is mindfulness. Being mindful or cultivating mindfulness through meditation practice improves self-control and creates better awareness of one's own activities and their impact.

Ignorance of our impacts on the environment has aggravated the environmental damage necessitating having local and global level policy – and other collaborative action including implementation of various environmental strategies and sustainable development goals, etc., etc. More than such collective action, Individual discipline and action could play a key role in changing the society for better environmental harmony. Thus, it is important to investigate and experience how mindfulness meditation could foster sustainable consumption patterns leading to conservation of resources, allowing better environmental harmony. This keynote will provide an analysis on how Buddhist meditation practices and mindfulness could foster such enhanced environmental harmony.

Nature as a Mantra: How Environmental Imagery Can act as an Entry Point to Meditation in Clinical Settings

Ms. Jennifer Donnelly

PhD Researcher
Centre for Positive Health Sciences
(RCSI University of Medicine and Health Sciences)
Dublin
Ireland

Meditation-based approaches are increasingly recognised as supportive tools for stress regulation and wellbeing in people living with chronic health conditions. Yet in many clinical services, particularly busy outpatient environments in Ireland, meditation is not part of routine care and may feel culturally unfamiliar and impractical for patients managing time constraints, symptoms, and uncertainty. These realities create a gap between evidence-informed contemplative practices and what is feasible and acceptable in real-world healthcare contexts.

This presentation explores how visual environmental imagery can serve as a pragmatic and patient-centred entry route into meditation, especially in settings where meditation is not common practice. Drawing on qualitative reflections from our research on the development of a meditation based intervention within immunology clinics, this talk will describe how individuals spontaneously used nature-based imagery to initiate and sustain meditation practice. Rather than treating imagery as a distraction, participants often experienced it as an enabling mechanism that helped them regulate arousal, stabilise attention, and cultivate a felt sense of safety.

Three interrelated functions of environmental imagery will be highlighted. First, imagery acted as an attentional bridge: when attention felt scattered or the practice felt unfamiliar, picturing a simple, soothing environment provided a concrete object of focus that reduced negative evaluation of performance, and supported reorientation. Second, imagery offered physiological settling: sensory-rich scenes (e.g., cool air, steady waves, warm sunlight) were used to downshift stress responses, particularly for participants who associated

symptom flares with heightened vigilance. Third, imagery may support meaning and connection: natural environments provided a language for calm, resilience, and acceptance, enabling participants to relate meditation to everyday experiences rather than an abstract technique reserved for specialist contexts.

Importantly, this approach aligned with the constraints of clinical life. Participants described using brief "micro-practices" anchored in imagery, sometimes for one to three minutes, before appointments, during commutes, or while managing symptoms at home. In such moments, environmental imagery functioned as a portable resource: accessible without special equipment, adaptable to different beliefs and backgrounds, and compatible with self-directed practice when clinician time is limited.

Environmental imagery may not only facilitate meditation engagement, but also subtly re-orient attention toward interdependence with the natural world, supporting a form of contemplative practice that connects personal regulation with broader ecological awareness. To conclude, practical implications will be offered for designing meditation resources for healthcare settings: incorporating optional imagery prompts, normalising flexible short practices, and framing nature-connection as a universal, culturally inclusive pathway into meditation.

Neuroscience of Contemplative Nature Experience: Insights for Education and Planetary Wellbeing

Dr. Pooja Swami Sahni

B.E. (Panjab University)
PhD (IIT, Delhi)

Principal Research Scientist
Mind Lab, IIT Delhi

Advisor
Rekhi Foundation for Happiness, USA

https://orcid.org/0000-0003-0592-0503

At a time of ecological crisis and collective disconnection, contemplative ecological education offers a hopeful pathway for healing both the human mind and the living planet. Drawing from neuroscience, mindfulness traditions, and nature-based learning, this talk explores how contemplative practices integrated with ecological education awaken deep capacities for attention, empathy, resilience, and care. Research shows that immersion in nature combined with mindfulness practices calms the nervous system, enhances cognitive flexibility, and strengthens emotional regulation—reflected in measurable shifts in brain activity associated with clarity, presence, and wellbeing. Beyond individual benefits, these practices cultivate a lived sense of interconnection, helping learners experience themselves not as separate from nature, but as participants within a larger web of life. From early childhood through adulthood, contemplative engagement with the natural world nurtures ecological belonging and transforms anxiety about environmental crises into compassion-driven action. By re-imagining education as a space for inner transformation and planetary awareness, contemplative ecological education invites a shift from extraction to relationship, from fragmentation to wholeness. This neuroscience-informed approach reveals how meditation, nature, and learning together can foster wiser, kinder, and more ecologically attuned societies—offering not only knowledge for the mind, but wisdom for the heart and hope for the Earth.

The First Step to Inner Peace

Dr. Iresha Goonesinghe

Consultant Cardiologist
California, USA

Founder
The Joyful Warrior Podcast

Buddhist Meditation Practitioner

In a world marked by increasing chaos and uncertainty, the journey toward global harmony begins within each individual. True peace on a global scale is rooted in the inner peace we cultivate within.

This symposium will explore four essential, practical steps to embark on this transformative journey:

- Nurturing a healthy body
- Cultivating a joyful mind
- Achieving true financial freedom
- Embracing an ethical and honest way of life

These pillars are vital for establishing inner peace. Without them, personal tranquility remains elusive, making collective harmony difficult to realize.

Join us as we share actionable insights to empower individuals to build a foundation of peace that can ripple outward, fostering a more harmonious world.

The Role of a Meditation Teacher in a World Longing for Meaning

Ms. Lisa Forde

Vice President
Meditation Association of Australia

Founder
Australian Centre for Meditation
and Mindfulness

Across many Western societies, including Australia, Europe, the United Kingdom and the United States, contemporary culture is experiencing rising levels of psychological distress, loneliness and existential uncertainty. The World Health Organization has identified loneliness as a significant global health concern, associated with increased risks of depression, anxiety, cardiovascular disease and premature mortality. While many individuals in Western contexts have moved away from formal religious participation, the underlying human longing for meaning, belonging and inner nourishment remains unchanged.

In other cultural contexts, including Sri Lanka and parts of Asia, long-standing spiritual traditions continue to shape personal and collective life. These traditions offer rich contemplative frameworks for understanding suffering, impermanence and the cultivation of wisdom. At the same time, belonging to a spiritual or religious tradition does not automatically guarantee social cohesion, emotional safety, or environments that can hold the full complexity of individual human experience. The way contemplative teachings are embodied, transmitted and facilitated remains central to their capacity to support healing and connection.

This presentation explores the evolving role of meditation teachers as facilitators of presence, self-awareness and compassionate inquiry, particularly within contemporary societies navigating rapid social change. Drawing on both research and lived experience, it examines meditation not only as a technique for stress reduction, but as a relational and experiential practice that supports emotional regulation, ethical sensitivity and deeper states of awareness. Neuroscientific research

from institutions such as Harvard demonstrates that mindfulness practices can positively reshape neural pathways associated with attention, emotional regulation and compassion within relatively short periods of consistent practice.

However, the effectiveness of meditation is shaped not only by technique, but by the relational and ethical context in which it is taught. Well trained meditation teachers create "safe enough" environments that allow individuals to turn inward with curiosity rather than fear or self-judgement. This facilitative presence grounded in humility, compassion, non-judgement and trauma-sensitive awareness, can support profound shifts in self-understanding and emotional integration.

Meditation circles, in particular, function as contemporary sanctuaries. When skilfully held, they offer inclusive, non-hierarchical spaces that support reflection, co-regulation and belonging. Rather than replacing medical or psychological models of care, meditation teaching complements them by offering spaces for the exploration of meaning-making, embodiment and connection that are often absent in modern life.

Situated within a global landscape marked by rising mental health challenges, technological acceleration and information overload, this presentation argues that meditation teachers, when well trained, ethically grounded and personally embodied; play a vital role in supporting individual and collective wellbeing. With the global meditation and mindfulness sector projected to reach USD $20 billion by 2030, questions of training quality, cultural sensitivity, integrity and community impact are increasingly important.

This presentation positions meditation teachers not as authorities over experience, but as stewards of presence; supporting healing, connection and meaning in ways that honour both contemplative traditions and the lived realities of contemporary human life.

Meditation as a Tool for Global Peace: The Multiple Ripples Approach

Prof. Wasantha Gunathunga

MBBS (University of Colombo)
M.Sc. (University of Colombo
MD. (University of Colombo)

Professor
Department of Community Medicine
Faculty of Medicine
University of Colombo

Board Member
Centre for Meditation Research
Faculty of Medicine
University of Colombo

Registered Teacher
Meditation Association of Australia

https://orcid.org/ 0000-0003-0818-6279

Stable inner peace helps restore both body and mind and can be shared to promote global harmony. This presentation summarizes my efforts to develop stable inner peace with insight meditation and use of a rippling approach to share it to promote happiness contentment and harmony in the society.

Following my initial search, I studied many religious teachings and found them to be very useful. However, I also found what the Buddha taught was different from other teachings in that the final achievement occurs before death, there is no supernatural power, it allows a precise ontological analysis of the body, mind and memory and the method is transferable.

My training included mandatory insight meditation of two hours every day and six hours during retreats and experience sharing discussions. The meditation included a body scan using the mind as a probe. As the mind holds only one thought at a time the meditative thought creates a gate that prevents other thoughts creeping in giving total peace in mind and body with sustained practice. It took me fifteen years since 1992 to comprehend total inner peace and to realize that it can really be achieved and it has no divine secrets in it. The method falls in line with all the basic principles of scientific inquiry. While experiencing my peace I had a sense of duty to share and contribute to global harmony.

Individual is made of three constituents, the mind, memory and a physical body that together generate hidden psycho somatic stress that erupts periodically. We go on until the body gives way with a heart attack, diabetes, a stroke or any other physical or psychological complication. Many of us are in this spectrum spanning from hidden stress to crippling complications. With

insight meditation and the allied lifestyle, the physical body recovers, proneness to NCDs becomes lesser, people live longer with happiness and contentment.

I started training diverse groups in insight meditation and called each group a ripple as it has a rippling effect of reaching people. Those who meditate regularly and made it part of their lifestyle constitute the potential pool of trainers. Once trained they will make the epicenter of a ripple and contribute to generate more ripples.

What I expect from you is to be a part of a ripple if not the epicenter. Ripples will merge one day making a paradigm shift of minds towards global peace, harmony and health.

ABSTRACTS OF POSTER PRESENTATIONS

MUSIC-ASSISTED MEDITATION: THE ROLE OF TEMPO AND RHYTHMIC PATTERNS IN MEDITATION PRACTICES

Abeywardana SY

Department of Musicology, University of the Visual and Performing Arts, Colombo, Sri Lanka

sandyabeywardana@gmail.com

This study examines how tempo and rhythmic patterns influence the effectiveness of music-assisted meditation (MAM), with the research question addressing how tempo and rhythmic structure shape physiological relaxation and attentional focus in MAM practices. A mixed-methods design combining a controlled experimental study with qualitative reflective interviews was used. Twenty participants engaged in four guided meditation sessions accompanied by music tracks differing in tempo, such as largo (slow, 50 BPM) and moderato (moderate, 120 BPM), and in rhythmic patterning. Physiological measures, including self-report scales and questionnaires, assessed perceived relaxation and focus. Results showed that slow, steady tempos produced relaxation, evidenced by significant increases in more consistent breathing patterns. Participants reported deeper relaxation and fewer cognitive intrusions during these sessions. Moderate tempos with gentle rhythms, such as 2/4, 3/4, and 4/4 patterns, improved alert focus but were less effective in inducing deep meditative states. When rhythm and tempo were steady, most participants focused on the beat. Irregular rhythms, such as non-rhythmic patterns with sound bowls, sounds of nature, and water drop sounds, caused engagement and reduced meditative involvement, although some participants found them helpful for maintaining present-moment awareness. The influence of tempo and rhythmic patterns depended on the present mood of the participant. The study concludes that tempo and rhythm are critical elements of meditative efficacy within music-assisted meditation (MAM), with largo (slow), steady rhythmic structures most strongly supporting physiological down-regulation and sustained meditative absorption, while moderato (moderate), stable rhythms facilitate mindful alertness and an uplifting mood. These findings provide evidence-based guidance for therapists, educators, and practitioners seeking to improve music selection in meditation-based interventions.

Keywords: *Meditative music, Rhythm-based interventions, Tempo variation, Rhythmic patterns, Music-assisted meditation*

DIET–GUT MICROBIOTA–MEDITATION: AN INTEGRATIVE PATHWAY TO MENTAL, PHYSICAL, AND SOCIAL HEALTH – A COMPREHENSIVE REVIEW

Batagoda MP[1*], Dahanayake KS[2], Dahanayake MY[2], Abeysinghe P[2] and Wickramsinghe RDSS[2]

[1]Department of Pali and Buddhist Studies, University of Sri Jayewardenepura, Sri Lanka
[2]Ministry of Health, Sri Lanka.
malinpb@gmail.com

Recent literature pertaining to healthy diet, microbiome, neuroscience, meditation, and health uncovers a powerful relationship. However, there is a scarcity of comprehensive reviews suggesting its applicability. This study critically reviews the available research evidence to establish the interconnection between vegan, vegetarian, and non-chemically grown food-based dietary patterns, diets high in prebiotics and probiotics, meditation, and health. A comprehensive review was conducted by searching research articles from indexed and non-indexed journals, including descriptive and controlled studies, reviews, and clinical trials, using PubMed, Scopus Preview, and Google as search engines with the following keywords: Gut-Brain Axis, Symbiosis, Eubiosis, Dysbiosis, Gut Microbiota, Gut Microbiome, Meditation, Vegan, Vegetarian, Non-chemically grown, Agrochemical, Health, Immunity, Psychology, Neurodegenerative, and Noncommunicable Diseases. Yoga meditation studies were excluded. Articles were classified under seven interconnections (quantitative variables) according to three categories: "for," "against," and "inconclusive," and analyzed descriptively. Among a total of 188 articles, 168 (89%), 16, and 4 were classified as "for," "inconclusive," and "against," respectively. Within the largest group ('gut symbiosis improves mental and physical health') of 78 articles (41%) and the second largest group ("meditation improves mental and physical health") of 73 articles (38%), 77 (98%) and 62 (84%) were "for," respectively. Out of 14 articles on "vegan/vegetarian diet improves gut symbiosis," 10 (71%) were in the "for" group. Nine of 11 papers (81%) on "vegan/vegetarian diet improves mental and physical health" belonged to the "for" category. Ten out of 12 articles (83%) combining "vegan/vegetarian diet helps meditation," "non-chemically grown organic diet improves health," and "meditation improves gut symbiosis" were in the "for" group. Based on these interconnections, the strongest link is between meditation, gut symbiosis, and mental and physical health, followed by the combination of meditation, vegan/vegetarian food, non-chemical/organic diet, and mental and physical health.

Keywords: *Meditation, Gut Microbiome, Vegan/Vegetarian Diet, Mental and Physical Health*

POSITIVE PHYSICAL, MENTAL AND SOCIAL HEALTH EFFECTS AMONG BUDDHIST MEDITATORS

Dahanayake KS[1*], Batagoda MP[2], Dahanayake MY[2], Abeysinghe P[2], Wickramsinghe RDSS[2], De Silva GVCP[3], Nishanthi MD[4], Dissanayake S[4], Perera MUM[5], Niroshana RMM[4], Pathirana JSA[4], Wiriththamulla J[4] and Karunathilaka GKND[6]

[1]Department of Pali and Buddhist Studies, University of Sri Jayewardenepura, Sri Lanka
[2]Ministry of Health, Sri Lanka
[3]Department of Ayurveda, Western Province, Sri Lanka
[4]Department of Ayurveda, Southern Province, Sri Lanka
[5]Department of Indigenous Medicine, Colombo Municipal Council, Sri Lanka
[6]Department of History, University of Sri Jayewardenepura, Sri Lanka
heladiviya@gmail.com

Although the positive health impacts of Buddhist meditation have been revealed in the literature, further evaluation of its applicability in the present-day Sri Lankan context is timely. The objective of this study was to identify the positive physical, mental, and social health effects of meditation among selected Buddhist meditators. Quantitative data were collected using 11 variables through a self-reported, closed-ended questionnaire, distributed to the study population (SP) from two Sri Lankan Buddhist meditation groups: *"Sil Suwandayi-Hela Diviyayi"* and *"Paragatha Maha Maithri Shrawaka Sansada"* (consisting of about 300 meditators). This sample represents adults of both sexes from a wide spectrum of socio-economic and professional backgrounds, excluding the northern and eastern provinces. Data were analyzed descriptively. Among the sample of 82 meditators (representing 28.6% of the SP) who responded, *Metta, Anitya, Vipassanā, Ānāpānasati,* others, and Mindfulness were reported at 95.1%, 84.1%, 40.2%, 22%, 8.5%, and 3.7%, respectively. The majority (58.5%) had been practicing for two years or more, and 50% practiced sessions lasting one hour or less. Around 93% and 80% reported reduced mental stress and improved physical well-being, respectively. About 74% were able to control pain arising during meditation sessions, while only 6% were unable to do so. A majority (71.9%) were able to either reduce or completely resolve preexisting common pains without painkillers. A vast majority (96.3%) reported increased concentration, while the rest remained unchanged. Seventy-five percent of respondents reported ease during occupational activities, and none experienced the opposite. Family harmony improved in 86.6% of cases, and problems during social interactions reduced in 91.5%, with none reporting the contrary. Overall, the majority of meditators showed preliminary evidence suggestive of positive physical, mental, and social impacts from regular Buddhist meditation practice.

Keywords: *Buddhist meditators, Physical, Mental, Social, Positive*

EFFECTS OF BUDDHIST MEDITATION AND RELATED RITUALS ON HEALTHY FOOD SECURITY: A DESCRIPTIVE STUDY OF 12 CASE REPORTS

Dahanayake KS[1*], Ileperuma CN[2], De Silva GVCP[3], Wickramsinghe RDSS[4] and Wiriththamulla J[5]

[1]Faculty of Graduate Studies, Department of Pali and Buddhist Studies, University of Sri Jayewardenepura, Sri Lanka
[2]Department of Samurdhi, Sri Lanka
[3]Department of Ayurveda, Western Province, Sri Lanka
[4]Ministry of Health, Sri Lanka
[5]Department of Ayurveda, Southern Province, Sri Lanka
heladiviya@gmail.com

The positive role of Buddhist meditation and rituals on controlling biotic and abiotic stress of food production and preparation of Sri Lanka, has not been adequately studied. The objective of this study was to study the positive effects of meditation and/or rituals on the management of biotic and abiotic stress on the food production/preparation done with no application of invasive and /or artificial Inputs (HFP). Twelve (12) cases were reported by beneficiaries of an HFP project (Sil suwandayi-Hela Diviyayi), from 2013 to 2025 were selected and multiple case study was done descriptively using 05 quantitative variables: (1). The type of food production/preparation activity, (2). Province of activity (3). Types of stress involved; Biotic (B) like weed, animals and insects and Abiotic (AB) such as lack or excess water and under/over nutrition, (4). Types of activity which they had used to overcome stress; Buddhist Meditation (Metta and/or Anitya i.e. impermanence) or Rituals (Application of Pirith chanted Water and/or Chanting of Stanzas) and (5) The outcome of stress management; Completely Prevented (CP), Fully Stopped (FS) or Partially Stopped (PS). Eleven cases of food production involving seven crops (traditional paddy, manihot, ash plantain, chillis, mango, guava and tea) and 01 outdoor mass cooking (food preparation) event were reported covering districts of 06 (southern, western, north-western, north central and Uva) provinces. Five groups of biotic and abiotic stressors were involved namely, birds, quadruped (cows, monkeys, pigs, elephants), insects and water. Three (25%) and 02 (16%) were able to manage with meditation or rituals alone respectively. Majority (64%) had practiced a combination of meditation and rituals. Altogether they were able to CP, FS or PS in 03 (25%) , 06 (50%) and 03 (25%) cases respectively. These cases reveal promising positive effects of meditation and/or rituals on healthy food production.

Keywords: *Buddhist meditation, Rituals, Food production*

EFFECTS OF BUDDHIST MEDITATION AND RELATED RITUALS ON AILMENTS

Dahanayake KS[1*] and De Silva GVCP[2]

[1]Faculty of Graduate Studies, Department of Pali and Buddhist Studies, University of Sri Jayewardenepura, Sri Lanka
[2]Department of Ayurveda, Western Province, Sri Lanka
heladiviya@gmail.com

Increasing dependency on therapeutic agents (TA) is a problem encountered by medical personnel; therefore, the effects of Buddhist meditation and/or related rituals (BMR) on commonly encountered ailments are worth considering. The objective of the study was to identify common ailments that could be managed with BMR, with no or additional TA, during medical practice. Qualified medical practitioners (QMPs) in allopathy and Ayurveda involved in the *"Sil Suwandayi–Hela Diviyayi"* project of Sri Lanka, who were willing to discuss their experiences, were selected and interviewed in person and over the phone to collect data based on their personal experiences in day-to-day medical practice, without revealing patient identity or information. Data were collected according to five quantitative variables: (1) type of ailment, (2) district, (3) type of BMR (meditation, chanting of *pirith*, and Buddhist stanzas), and (4) effects, namely complete relief (CR) or partial relief (PR). Seventeen (17) QMPs who visited patients from 15 districts (Gampaha, Galle, Matara, Colombo, Anuradhapura, Kalutara, Kurunegala, Hambantota, Ampara, Batticaloa, Kandy, Rathnapura, Badulla, and Monaragala) and from two overseas locations (Australia and the UK) responded. They reported 20 clearly identified conditions, monitored during practice, that showed CR or PR with BMR with no or additional TA, namely fever, lower abdominal pain, gastric pain, headache, numbness of the head, vomiting, neck pain, back pain, menstrual pain, pain during pregnancy, delivery pain, cancer pain, dental pain, bronchial asthma, pain in patients with chronic kidney disease, fear of disease spread, distress related to cancer treatment, cancer pain in cancer patients, and mental stress. It is possible that some common ailments could be managed with BMR, with no or additional TA, during medical practice, provided that patients are properly monitored.

Keywords: *Buddhist meditation, Rituals, Ailments*

EFFECTS OF MEDITATION AND HEALTHY MEALS ON THE ACADEMIC PERFORMANCE OF PRIMARY SCHOOL CHILDREN

Dahanayake KS[1*] and Batagoda MP[2]

[1]Department of Pali and Buddhist Studies, University of Sri Jayewardenepura, Sri Lanka
[2]Ministry of Health, Sri Lanka
heladiviya@gmail.com

Poor concentration during academic work and addiction to junk food are common among primary school children (PSC). Therefore, it is important to examine whether meditation and healthy food have any positive effects on the academic performance of PSC. The objective of this study was to determine the effects of the combined use of meditation and healthy food on the academic performance of PSC. The study population consisted of students in grades 03 to 05 of a well-known male national school in Colombo city, who participated in Compassionate Meditation (CM) for 5 to 10 minutes, coupled with a regular Healthy Mid-day Meal (HMM), as part of a well-planned intervention conducted continuously by trained staff during school hours for approximately two years. The number of students (quantitative variable) who scored less than 75% (75G1st) and less than 25% (25G1st) in at least one of four subjects (Mathematics, Sinhalese, English, and Buddhism) in the First Term Test (FTT) held prior to the intervention was quantified. These were compared with scores from the Last Term Test (LTT), 75G2 and 25G2, held six months after the start of the intervention. The 774 students in 75G1st and 69 students in 25G1st at FTT were reduced to 260 (33.7%) and 10 (14.4%) in 75G2 and 25G2, respectively, at LTT. This represents an increase of 514 (66.3%) and 59 (85.5%) of students who achieved marks equal to or above the 75% and 25% cut-off levels, respectively. The majority of PSC who had scored below 75% and 25% in selected subjects improved their marks while participating in the combination of regular Compassionate Meditation and a Healthy Mid-day Meal.

Keywords: *Meditation, Healthy meal, School children*

EFFECT OF MEDITATING TRAINERS ON PROMOTION OF PLANETARY-FRIENDLY FOOD CULTURE

Dahanayake KS[1*], Ileperuma CN[2], Batagoda MP[3], Wickramsinghe RDSS[3], De Silva GVCP[4], Nishanthi MD[5], Wiriththamulla J[5], Niroshana RMM[5], Perera MUM[6], Dissanayake S[5]

[1]Faculty of Graduate Studies, Department of Pali and Buddhist Studies, University of Sri Jayewardenepura, Sri Lanka
[2]Department of Samurdhi, Sri Lanka
[3]Ministry of Health, Sri Lanka
[4]Department of Ayurveda, Western Province, Sri Lanka
[5]Department of Ayurveda, Southern Province, Sri Lanka
[6]Department of indigenous Medicine, Colombo Municipal Council, Sri Lanka
heladiviya@gmail.com

Promotion of Planetary-Friendly Food (PFF) requires Voluntary Harmonization of Relevant Stakeholders (VHRS), and it is timely to examine whether Trainers who Meditate (TM) positively influence this process. The objective of this study was to assess the effects of TM on improving VHRS to promote PFF. TM practice *"Anithya"* (impermanence) by contemplating *'Nawa Seewathika'* to reduce clinging, followed by cultivating compassion (*Metta)* for all living beings and non-living planetary components such as water, air, and earth, in line with Buddhist literature including the *Metta* and *Mettānisaṁsa Sūtra.* Guided by strong determination, TM implemented a structured multidisciplinary intervention to promote PFF through VHRS, providing the necessary knowledge, skills, and attitudes related to food production, manufacture, cooking, serving, and entrepreneurship. This voluntary project, conducted continuously since 2012 across all provinces, was monitored using 10 quantitative variables and analyzed descriptively. Over the 12-year period, the number of meditating trainers and training programs increased by 10 and 2.7 times, respectively. The utilization of PFF, extent of PFF farming, number of PFF farmers, PFF yield, and PFF sales increased by 5, 100, 4, 25, and 32 times, respectively. Additionally, PFF value-added food commodities, cooking and serving events, and entrepreneurs increased by 25, 13, and 10 times, respectively. Preliminary evidence suggests that TM may have a significant positive impact on promoting PFF by enhancing VHRS from farm to fork. Controlled studies are recommended to confirm these findings.

Keywords: *Buddhist meditation, Compassion, Planetary-friendly-food*

THE UTILITY OF MEDITATION AS A TOOL FOR CHANGING TEENAGERS' BEHAVIOR AND ENHANCING EDUCATION

Godamune Chullanaga

Department of Pali and Buddhist Studies, Banaras Hindu University (BHU), Varanasi – 221005, India

bhantechulla@yahoo.com

Many psychological, emotional, and behavioral issues affect adolescents during their development. Stress, anxiety, impulsivity, and lack of concentration are common in educational settings, where they hinder learning performance and socialization. Meditation, particularly mindfulness-based meditation, has emerged as an innovative intervention that may provide mental health benefits and enhance learning experiences for adolescents. Although literature on meditation has increased, there remains a lack of consensus on its practical use in mainstream educational institutions for adolescents. This review summarizes the results of more than 50 peer-reviewed articles selected based on relevance, recency (2010–2023), and methodological quality. Randomized controlled trials, meta-analyses, and qualitative studies addressing adolescents (aged 12–18) and the effects of meditative interventions in educational or clinical settings were identified through databases such as PubMed, Scopus, and ERIC. Across the analyzed literature, meditation was consistently linked to improved emotional control, reduced aggression, better attentional control, and increased classroom engagement. The review demonstrated the consistent positive effects of mindfulness-based meditation in adolescents, including enhanced emotional regulation, reduced anxiety, improved attention, and greater classroom engagement. Studies conducted specifically in Sri Lanka found that stress levels during exams, peer relationships, and school-based activities improved following school-based meditation programs. Teachers reported reduced classroom stress and enhanced student concentration. Nevertheless, inconsistencies in program duration, delivery, and cultural appropriateness influenced outcomes. Acceptance in Sri Lanka was also affected by familiarity with religion and culture, highlighting the need for contextual adaptations to ensure successful implementation.

Keywords: *Meditation, Adolescent behaviour, Education, Mindfulness, School-based intervention*

MINDFULNESS: AN EVOLVING NATIONAL MOVEMENT FOR SOCIAL AND INTERPERSONAL IMPACTS IN THE SRI LANKAN HEALTHCARE SYSTEM

Hewageegana NSR[1*], Chandrasena APRS[2] and Gunawardena A[2]

[1]Postgraduate Institute of Medicine, Sri Lanka
[2]Ministry of Health, Sri Lanka
drneelamani@yahoo.com

Globally in healthcare, mindfulness has gained recognition for enhancing emotional well-being and for helping to address staff burnout, compassionate engagement, and interpersonal communication. This study asked whether ongoing structured mindfulness training at healthcare institutions impacts social and interpersonal functioning among healthcare teams in Sri Lanka. The study design was descriptive, focusing on Ampara District General Hospital as the case study, while also considering mindfulness initiatives implemented across Sri Lankan healthcare institutions. Data were gathered through a mixed methodology, including desk reviews of program reports from the Sati Pasala Foundation and Ministry of Health training initiatives, participant observation, and semi-structured interviews with five multidisciplinary staff members. In-depth interviews were conducted using an interviewer guide tailored to staff categories, and five categories of staff were included: the Director of Ampara District General Hospital, a Special Grade Nursing Officer, a Nursing Officer, a Paramedic, and a Junior Staff Member. Key program components included the Master Trainers Programme (2024), the "Slowly, Mindfully, Silently (SMS)" method, and activities integrated experientially into daily workflows. Thematic analysis across the interviews showed that the one-year mindfulness program had a strong positive social and interpersonal impact, with improved emotional regulation across all cadres, reduced burnout symptoms through calmness, clarity, and improved mood, increased empathy toward patients and colleagues, and strengthened interpersonal relationships through improved teamwork, communication, and respect. Observable improvements in emotional regulation, teamwork, and communication were associated with mindfulness practice, as staff reported lower levels of burnout due to reduced workplace tension, increased empathy, and strengthened interpersonal relationships across all categories of staff. Program adoption was strengthened through sustained leadership and structured mentorship that embedded mindfulness into routine healthcare practice. A broader social impact beyond hospital settings was observed when healthcare personnel collaboratively extended the program to school health initiatives, embracing the "Healthy Setting Approach." In conclusion, Sri Lanka's mindfulness movement within healthcare institutions demonstrates that meaningful enhancement of social and interpersonal functioning in healthcare environments can result from structured, context-sensitive mindfulness interventions. When compassionate engagement, relational harmony, and emotional intelligence are fostered, socially responsive healthcare is promoted, while leadership commitment and systematic evaluation remain crucial for sustaining and expanding these interpersonal benefits across institutions.

Keywords: *Mindfulness, Healthcare staff, Interpersonal functioning*

COMPARING MINDFULNESS-BASED STRESS REDUCTION (MBSR) AND PROGRESSIVE MUSCLE RELAXATION (PMR) INTERVENTIONS FOR MANAGING ADJUSTMENT DISORDER IN MIDDLE-LEVEL MANAGERS OF SELECTED APPAREL SECTOR ESTABLISHMENTS IN SRI LANKA

Jayatilake P[1*], Gunathunga MW[2] and Liyanage L[3]

[1]The Faculty of Graduate Studies, General Sir John Kotelawala Defence University, Sri Lanka
[2]Department of Community Medicine, Faculty of Medicine, University of Colombo, Sri Lanka
[3]Department of Social Sciences, Faculty of Management, Social Sciences and Humanities, General Sir John Kotelawala Defence University, Sri Lanka
jayatilakeprasanna@gmail.com

Employees in the apparel sector in Sri Lanka experience high levels of stress and are vulnerable to Adjustment Disorder (AjD), highlighting the need for effective and easily accessible interventions to reduce its occurrence and support those affected. However, research on the effectiveness of interventions for managing AjD symptoms remains scarce in Sri Lanka and other South Asian countries. This study examined the effectiveness of a Mindfulness-Based Stress Reduction (MBSR) intervention compared with a control group and a conventional stress-reduction program, Progressive Muscle Relaxation (PMR). A quasi-experimental research design with purposive sampling was employed. Participants from eight apparel factories were screened for AjD by trained counsellors using the Adjustment Disorder New Module-20 (ADNM-20) and DSM-5 criteria. Screened participants were non-randomly assigned to an MBSR (n = 48) or PMR (n = 45) intervention group, or to a control group (n = 46) that received no treatment. The intervention groups continued MBSR or PMR for 2.5 hours per week over a total of eight weeks. Data collection tools included the ADNM-20, DASS-21, K-10, and GHQ-12, along with demographic questionnaires, with assessments conducted at baseline and post-intervention. Results showed a significant reduction in mean ADNM-20 scores from pre- to post-intervention in the MBSR group (Wilcoxon signed-rank test, $p = 0.001$). The Kruskal–Wallis H test revealed statistically significant differences in post-test scores among the three groups, and post hoc analysis demonstrated a statistically significant difference ($p = 0.001$) between the MBSR and PMR groups. These findings suggest that both MBSR and PMR are effective in reducing symptoms of AjD; however, MBSR demonstrates a greater level of effectiveness than PMR. This study provides a foundation for future research by demonstrating the effectiveness of MBSR and its benefits in the apparel sector, and practitioners can be encouraged to implement MBSR to improve occupational health in similar high-risk work environments.

Keywords: *Adjustment Disorder, ADNM-20, Apparel Sector, MBSR, PMR*

ENHANCING ACADEMIC PERFORMANCE IN MEDICAL EDUCATION THROUGH LOVING-KINDNESS MEDITATION: A TWO-YEAR LONGITUDINAL MATCHED-COHORT STUDY

Kumarasinghe N[1] and Aslam F[2*]

[1]General Sir John Kotelawala Defence University, Sri Lanka
[2]Management and Science University, Malaysia
fahimaslam30@gmail.com

Medical education imposes substantial cognitive and psychological demands that can affect academic outcomes and student wellness. While meditation is recognized for stress reduction, its influence on long-term academic achievement in demanding medical curricula remains inadequately explored. This study examines whether sustained Loving-Kindness Meditation (LKM) practice impacts academic performance in medical undergraduates, focusing on outcomes at the 1st Barrier Examination (2nd MBBS). A prospective, longitudinal, matched-cohort study was conducted over two years at the Faculty of Medicine, University of Colombo. Twenty medical students were enrolled and divided into a Test Group (n = 10) and a Control Group (n = 10), matched on baseline G.C.E. Advanced Level Z-scores to ensure academic comparability. The Test Group practiced one hour of daily LKM for the study duration, while the Control Group engaged in no formal meditation. Academic performance was evaluated through the 2nd MBBS (1st Barrier) Examination, with the primary outcome defined as achieving high performance (≥70%) in Human Anatomy. Despite comparable baseline academic profiles (mean baseline Z-scores: Test = 1.77 ± 0.07, Control = 1.77 ± 0.06), the groups diverged significantly at study completion. The Test Group achieved a mean Anatomy score of 75.6 ± 3.73 compared to 65.0 ± 2.87 in the Control Group, representing a 10.6-point difference. All 10 Test Group students (100%) reached high-performer status (≥70%), while none in the Control Group achieved this threshold. The cumulative incidence of high performance was 1.00 versus 0.00, yielding a relative risk approaching infinity. Z-normalized performance demonstrated clear statistical separation, with Test Group students scoring 0.5–1.0 standard deviations above the Control Group. Regular Loving-Kindness Meditation practice strongly correlates with enhanced academic performance in Human Anatomy among medical students. The complete achievement of high-performer status in the intervention group suggests that LKM may substantially enhance cognitive functions critical for mastering complex anatomical content, including visualization, memory consolidation, and stress resilience. The absence of a formal sample size calculation represents a methodological limitation that may affect the generalizability of these findings. Integrating contemplative practices into medical curricula may simultaneously advance the conference theme of "Global Harmony" through compassion cultivation while meaningfully improving academic outcomes.

Keywords: *Loving-Kindness Meditation, Medical Education, Human Anatomy, Academic Performance, Contemplative Pedagogy*

IMPACT OF A SCHOOL-BASED MEDITATION PROGRAM ON COGNITIVE FUNCTIONING AND SOCIO-EMOTIONAL WELL-BEING IN GRADE 7 STUDENTS

Kumari HANP[1*] and Elvitigala SS[2]

[1]Ananda College, Kottawa, Sri Lanka
[2]Mahamaya Girl's College, Nugegoda, Sri Lanka
niroshini902@gmail.com

It has become a necessity today to provide society with individuals who enter it from school with balanced personalities, nourished by both knowledge and virtue. Therefore, within schools, teachers, as guides in the teaching–learning process, organize many activities aimed at developing students' social and emotional skills and equipping them with essential social competencies. As part of this approach, meditation is increasingly being integrated into educational settings. This study investigates how regular school-based meditation practice affects students' attention, academic performance, and socio-emotional well-being. The main research question examined how daily mindfulness-based meditation influences cognitive functioning, academic outcomes, and classroom behavior among participating students compared to those who do not engage in meditation activities. The primary objectives were to enhance social–emotional learning and emotion management, reduce behavioral problems by fostering self-awareness and social awareness, improve educational achievement through the development of positive attitudes, and reduce emotional stress by creating a collaborative learning environment. An experimental mixed-methods approach was employed. Students from two seventh-grade classrooms (N = 54) participated in the study over an eight-week period, during which the experimental group engaged in a 10-minute guided meditation at the beginning of each school day, while the control group followed standard classroom routines. Quantitative and qualitative data were collected using teacher and student questionnaires, student-focused interviews, and observation checklists. Simple statistical measures and thematic analysis were used for data analysis, with findings presented through tables, graphs, and percentages. Results showed that students in the meditation group demonstrated significant score increases and moderate improvements in mathematics and language arts compared to the control group. Teachers reported decreases in disruptive behavior, improvements in students' emotional regulation and tolerance, and increased readiness to learn. Qualitative analysis revealed that many students experienced greater awareness of their emotional states, including improved calmness and sustained attention during lessons. Overall, the study suggests that even short, regular meditation practices can provide meaningful educational benefits, with improvements in attention emerging as the strongest outcome. Meditation was found to be highly beneficial for academic performance and socio-emotional well-being, and although the sample size was limited, the findings support the incorporation of meditation activities into school programs to enhance mindfulness and focus. Future studies should examine long-term effects and explore differences across age groups, instructional settings, and meditation techniques.

Keywords: *Meditation, Academic performance, Classroom behavior, Social emotional well-being*

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Svindya47@gmail.com

වර්තමාන ගෝලීය පාරිසරික අර්බුදය මානව ක්‍රියාකාරකම් වල ප්‍රතිඵලයක් වන අතර, මෙහි මූලයන් සොයා බැලීමේ දී, බාහිර හේතු වලට වඩා මානව මනෝවිද්‍යාත්මක සාධක කෙරෙහි අවධානය යොමු කිරීම වැදගත් වේ. මෙම අධ්‍යයනය බෞද්ධ මනෝවිද්‍යාවේ මූලික අකුසල මූලයන් වන තෘෂ්ණාව සහ ලෝභය පාරිසරික හානියට හේතු වන ආකාරය විමර්ශනය කරයි. පර්යේෂණ ගැටළුව වන්නේ පාරිසරික හානිය පිටුපස ඇති මූලික මානව මනෝවිද්‍යාත්මක සාධක බෞද්ධ දර්ශනයේ එන තෘෂ්ණාව සහ ලෝභය යන සංකල්ප මගින් පැහැදිලි කළ හැකි ද? යන්නයි. මෙය අධ්‍යනයෙහි ප්‍රධාන අරමුණ වන්නේ පාරිසරික විනාශයට තුඩු දෙන මානව හැසිරීම් කෙරෙහි තෘෂ්ණාව සහ ලෝභය බලපාන ආකාරය විශ්ලේෂණය කිරීමයි. අධික පරිභෝජනවාදය සහ සම්පත් සූරාකෑම බෞද්ධ දෘෂ්ටියකින් විමසා බැලීමත්, පාරිසරික තිරසාරභාවය සඳහා අලෝභය සහ ලද දෙයින් සතුටු වීම වැනි බෞද්ධ සංකල්ප මගින් ලබා දෙන විසඳුම් හඳුනා ගැනීමත් උප අරමුණු වේ. මෙම පර්යේෂණය සඳහා ගුණාත්මක දත්ත විශ්ලේෂණය යොදා ගත් අතර, මූලික බෞද්ධ සූත්‍ර හා සමකාලීන කතුවරුන් විසින් රචිත ග්‍රන්ථ විශ්ලේෂණය කරමින්, තෘෂ්ණාව හා ලෝභය පාරිසරික සන්දර්භය තුළ අර්ථකථනය කර න්‍යායික රාමුවක් ගොඩනඟන ලදි. පර්යේෂණ ප්‍රතිඵල අනුව, තෘෂ්ණාව සහ ලෝභය යන මනෝවිද්‍යාත්මක මූලයන් අනිත්‍ය සහ අනාත්ම පිළිබඳ අවබෝධය නොමැති විට, ස්ථිර සතුටක් අපේක්ෂාවෙන් ද්‍රව්‍යමය වස්තූන් කෙරෙහි අසීමිත ඇල්මක් ඇති කරන බවත්, මෙම ප්‍රවණතාවය ආත්මාර්ථකාමීත්වය සහ සම්පත් පුද්ගලීකරණය ඉහළ නංවන බවත් සොයා ගැනිණි. බෞද්ධ දෘෂ්ටියට අනුව, මෙය පාරිසරික විනාශයේ සෘජු මූලය වන අධික පරිභෝජනවාදයට සහ සම්පත් සූරාකෑමට හේතු වන බවත් සොයා ගැනිණි. පර්යේෂණ ප්‍රතිඵල තුළින් තිරසාරභාවය සඳහා අලෝභය (තෘෂ්ණාවෙන් නිදහස් වීම) සහ සතුටු වීම (ලද දෙයින් සෑහීමකට පත්වීම) වැනි බෞද්ධ සංකල්ප මගින් විසඳුම් ලබා දෙන බවත්, මෙම ගුණාංග සරල ජීවන රටාවක් ප්‍රවර්ධනය කරන අතර, එමගින් පාරිසරික පීඩනය අවම කර, තිරසාර මානව-පරිසර සම්බන්ධතාවක් සඳහා මනෝවිද්‍යාත්මක පදනම සපයන බවද සොයා ගැනිණි. පාරිසරික හානියට තෘෂ්ණාව සහ ලෝභය මූලික වන අතර, අලෝභය සහ ලද දෙයින් සතුටු වීම තුළින් සරල ජීවන රටාවක් ඔස්සේ තිරසාර මානව පරිසර සම්බන්ධතාවක් ඇති කළ හැකි බව නිගමනය කළ හැකිය.

ප්‍රමුඛ පද: තෘෂ්ණාව, පරිභෝජනවාදය, පාරිසරික, මනෝ විද්‍යාත්මක, ලෝභය

Synopsis: The current global environmental crisis is largely a result of human activities, with greed and craving identified as key underlying factors. This study examines how these fundamental psychological tendencies, as understood in Buddhist philosophy, contribute to environmental harm. Qualitative analysis of primary Buddhist texts and contemporary literature revealed that craving and greed, when combined with a lack of understanding of impermanence and non-self, drive overconsumption and resource exploitation. Buddhist concepts such as non-greed (freedom from craving) and contentment (satisfaction with what one has) promote a simple lifestyle that reduces environmental pressure. In conclusion, craving and greed are central drivers of environmental damage, while non-greed and contentment provide a psychological foundation for sustainable human-environment relationships.

STUDY ON MANAGING SELF-INTEGRITY BY MINDFUL MEDITATORS

Pandikorala GT

olos_e@yahoo.com

In today's fast-paced world, quietening the mind has become a critical objective, leading to increased global interest in mindfulness meditation. Despite widespread adoption of meditation practices, persistent challenges in interpersonal relationships, organizational conflicts, and global disharmony suggest a gap between meditation practice and desired outcomes. This study investigates whether authentic inward awareness—specifically self-integrity—is essential for meditation effectiveness. The objective of the study was to explore the role of truthful self-observation and inward integrity in achieving successful meditation outcomes, particularly regarding quality of life and social-interpersonal harmony. A qualitative study employed in-depth interviews with purposively selected participants: one Buddhist monk experienced in mindfulness meditation; three young practitioners from major religions with information technology backgrounds (to assess digital tools for enhancing self-awareness); and two veteran Buddhist meditators—one with scriptural expertise and one emphasizing practical devotion. Data were analyzed thematically using strategically crafted prompts to access deep experiential knowledge while maintaining ethical standards and researcher neutrality. Thematic analysis generated eight major themes through deep engagement with participants' lived meditation experiences rather than theoretical frameworks. Creative application of thematic analysis with precise prompts enabled rigorous examination of authentic practice, with experiential depth compensating for sample size. All participants unanimously identified awareness as meditation's foundational element—the human capacity to recognize and transcend destructive mental patterns, distinguishing conscious meditation from instinctive survival responses. Major themes in order of foundational importance were: (1) Awareness as the non-negotiable foundation—a distinctly human capacity often obscured by conditioning—enabling observation of both events and energy-depleting responses; (2) Self-integrity requiring active cultivation as a meditation prerequisite, though commonly presumed rather than deliberately practiced; (3) Universal acknowledgment of self-honesty's importance across religious traditions; (4) Invisibility of self-deception preventing practitioners from recognizing deficiencies in their own practice; (5) Divergent goals between worldly improvements and transcendent spiritual aspirations; (6) Mindfulness meditation as a non-religious platform accessible across faith traditions; (7) Digital tools as potential facilitators of self-awareness among younger practitioners; (8) The self-integrity gap as a critical determinant of meditation effectiveness. The Buddhist monk demonstrated that mindful meditation extends beyond formal sitting to walking meditation, household chores, workplace activities, and physical exercises—requiring continuous truthful self-observation throughout daily life. Two young participants showed positive responses to digital self-awareness tools. All participants affirmed meditation's importance for quality of life. The monk and experienced lay meditator provided concrete examples demonstrating that cultivating self-integrity as an active practice substantially enhances meditation outcomes and interpersonal relationships. The study establishes that truthful inward observation through deliberate self-integrity cultivation is crucial for meditation effectiveness. Deep experiential inquiry reveals meditation's significant potential for improving quality of life and strengthening social-interpersonal relationships when practitioners actively cultivate rather than merely assume self-honesty. Digital tools show promise for developing authentic self-awareness. Further research on digitalization's role and experiential methodologies for examining meditation practice is recommended.

Keywords: Meditation, *Self-Integrity, Awareness, Quality of Life*

MEDITATION-INTEGRATED TRADITIONAL CHINESE MEDICINE APPROACHES FOR MANAGING PREMENSTRUAL DYSPHORIC DISORDER: A CASE-SERIES

Perera KSA[1,3*], Hemasinghe IHN[2] and Samaranada HMVA[1,3]

[1]Faculty of Medicine, Lincoln University College, Malaysia
[2]Department of Acupuncture, Moxibustion and Tuina. Shanghai University of Traditional Chinese Medicine, China
anuradhaperera0317@gmail.com

Grounded in the principle of an interconnected mind–body system, Traditional Chinese Medicine (TCM) emphasizes the relationship between emotional and physiological functions. Contemporary studies indicate that Qigong, a mind–body practice incorporating controlled breathing, gentle movements, and meditative focus, can modulate autonomic function, reduce stress, and improve overall well-being. Given the intertwined physical and emotional components of Premenstrual Dysphoric Disorder (PMDD), integrating Qigong into a TCM therapeutic framework may provide a holistic approach to managing its complex symptomatology. The objective of the study was to assess the clinical effectiveness of a combined acupuncture and Six Healing Sounds (Liu Zi Jue, 六字诀) Qigong intervention on PMDD over two menstrual cycles. A case series with a pre–post intervention design was conducted among females aged ≥18 years diagnosed with PMDD at Shenling Clinic Pvt. Ltd., Sri Lanka, of whom 17 completed the two-menstrual-cycle intervention. Baseline data were collected prior to treatment using a structured questionnaire assessing demographic, reproductive, and menstrual history, along with the Premenstrual Symptoms Screening Tool. The intervention included individualized acupuncture treatment sessions based on TCM diagnosis, provided once a week, daily home-based Qigong practice (10–15 minutes) using the Six Healing Sounds method with guided instructions, and dietary recommendations aligned with TCM principles. PMDD symptoms were reassessed after the first menstrual cycle and again following the second cycle to evaluate changes over time. Participants (mean age 28.00 ± 7.475 years) demonstrated progressive symptomatic improvement over two menstrual cycles, with PSST scores decreasing from a mean of 41.65 to 6.94 by the end of the second cycle. This was confirmed by a Wilcoxon signed-rank test ($W = 153$, $p < .001$), following a violation of normality (Shapiro–Wilk $W = 0.946$, $p < .05$, rank-biserial $r = 1.00$). The observed improvements in mood, somatic, and cognitive symptoms highlight the value of incorporating mind–body interventions into complementary PMDD management, and further research using controlled studies is recommended.

Keywords: *Meditation, PMDD, Acupuncture, Qigong, Mind–Body Intervention, TCM*

EXPLORING THE ROLE OF MEDITATION IN ENHANCING EMOTIONAL INTELLIGENCE AMONG STUDENTS: A LITERATURE-BASED STUDY

Pramila S[1] and Senarath S[1]

[1]Department of Educational Psychology, Faculty of Education, University of Colombo, Sri Lanka

pramilaselvaraja@gmail.com

This literature-based study investigates the influence of meditation on students' emotional intelligence (EQ), aiming to understand the mechanisms through which mindfulness practices contribute to emotional and cognitive development. The central research question guiding this study is how meditation enhances students' emotional intelligence and what theoretical frameworks explain this relationship. A systematic review of scholarly literature was conducted, drawing from peer-reviewed journals, books, and credible databases. The study integrates theoretical perspectives, including Goleman's Emotional Intelligence framework, Mayer and Salovey's Ability Model of EQ, and Mindfulness Theory, to provide a conceptual foundation. Thematic synthesis was used to identify patterns and insights across studies, focusing on how meditation practices such as mindfulness, focused attention, and guided reflection impact the development of emotional competencies in students. Findings indicate that meditation enhances key dimensions of EQ, including self-awareness, self-regulation, empathy, and stress management. According to Goleman's framework, meditation strengthens students' ability to recognize and control emotions effectively. Mayer and Salovey's model highlights improvements in perceiving, understanding, and managing emotions, while Mindfulness Theory emphasizes the role of present-moment awareness in promoting emotional balance and resilience. Collectively, the reviewed literature suggests that students who engage in regular meditation demonstrate greater emotional resilience, improved interpersonal skills, and enhanced overall well-being. The study concludes that incorporating meditation into educational settings can cultivate emotionally intelligent learners, supporting personal growth, social competence, and psychological health. These insights underscore the importance of integrating evidence-based mindfulness practices informed by established theoretical frameworks and highlight meditation's potential as a strategy to enhance educational outcomes and holistic student development.

Keywords: *Meditation, Emotional intelligence, Mindfulness, Goleman, Mayer-Salovey, Educational impact*

ASSESSING MINDFUL CITY READINESS: A GIS AND REMOTE SENSING ANALYSIS OF URBAN ENVIRONMENTS SUPPORTING MEDITATION AND WELL-BEING

Prarthana WKS[1*] and Dias WMS[1]

[1]Department of Geography, University of Peradeniya, Sri Lanka

sdnprt14@gmail.com

Rapid urbanization has increasingly transformed the environmental and socio-spatial characteristics of Sri Lankan cities, raising concerns about mental well-being and the availability of healing spaces. The primary objective of this study is to develop a Mindful City Index (MCI) using GIS and Remote Sensing to discover the mindfulness-supportive spaces of the urban environment in the Colombo District. Nine indicators associated with environmental quality and socio-spatial comfort—Normalized Difference Vegetation Index (NDVI), Land Surface Temperature (LST), Aerosol Optical Depth (AOD), proximity to green spaces and water bodies, population, building and road density, and noise exposure from major transportation routes—were derived from Landsat imagery, MODIS aerosol datasets, Survey Department data, and demographic layers. Each indicator was standardized and weighted based on previous literature and combined in a GIS-based weighted overlay to generate the MCI raster. The validity of the MCI raster is supported by the logical spatial correspondence between MCI outputs and known land-use patterns, and visual validation using high-resolution Google Earth imagery, which confirmed the alignment of vegetation, built-up density, and major transport corridors with the index. The resulting MCI values range from 0.226 (low) to 0.912 (high) mindfulness suitability, revealing a clear gradient of mindfulness readiness across the district: low suitability in the densely urbanized western parts (Colombo City, Kotte, Dehiwala–Mount Lavinia, Moratuwa, Thimbirigasyaya), moderate suitability in central suburban regions (Maharagama, Homagama, Kesbewa), and high suitability in the greener eastern zones (Hanwella, Padukka). These patterns reflect the influence of elevated temperatures, limited vegetation, air pollution, and noise in built-up areas versus the cooler microclimates and extensive green cover in peri-urban environments. The study demonstrates that rapid urbanization is reducing mindfulness-supportive environments in the district. Therefore, the GIS- and RS-based MCI offers a practical tool for urban planners to identify, preserve, and enhance urban spaces that support meditation, psychological restoration, and overall well-being.

Keywords: *Mindful City Index (MCI), GIS and Remote Sensing, Urban Well-Being, Meditation Supportive Environments, Colombo District Urbanization*

පුද්ගල පෞරුෂය සංවර්ධනය කිරීමෙහිලා බෞද්ධ භාවනාවේ උපයෝගීතාව පිළිබඳ සමථ භාවනාව ඇසුරෙන් විමර්ශනාත්මක අධ්‍යයනයක්

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prarthanasithmi8@gmail.com

පුද්ගල පෞරුෂය යනු ස්ථාවර මානසික, චිත්තවේගීය හා චර්යා රටා සමූහයකි. ඒ තුළින් පුද්ගලයා සම්පූර්ණ පූර්ණත්වය සහ සමාජීය වගකීම් භාරගත හැකි තැනැත්තාකමක් උරුම කරගැනීමේ ක්‍රියාවලිය පෞරුෂත්ව සංවර්ධනයයි. නූතන මනෝවිද්‍යාව පෞරුෂය පිළිබඳව නොයෙක් අධ්‍යනයන් කළ ද, පෞරුෂය අභ්‍යන්තරයෙන්ම සවිඥානිකව සංවර්ධනය කිරීම පිළිබඳව අවධානය යොමු කර ඇත්තේ අල්පමාත්‍ර වශයෙනි. නමුත් බුදු දහම වසර දෙදහස් පන්සියයකට ඈත කාලවකවානුවක පුද්ගල පෞරුෂය වනාහි සිත දියුණු කිරීම (භාවනාව) ඔස්සේ වෙනස් කළ හැකි සංස්කාර සමූහයක් ලෙස හඳුනාගෙන ඇතිසමථ භාවනාව මූලිකවම සිතේ සමාධිය හා සන්සුන්කම වඩවන අතර, එය මානසික විනය හා චිත්තාවේග පාලනය මඟින් පෞරුෂයේ ස්ථාවරත්වය තීරණය කරන ප්‍රභල සාධකයකි. ඒ අනුව සමථ භාවනාවෙන් ප්‍රකාශිත සමසතළිස් කර්මස්ථාන පුද්ගල පෞරුෂ සංවර්ධනයට සෘජුවම දායක කරගත හැකිද යන්න මෙම පර්යේෂණයේ ගැටලුවයි. පුද්ගල පෞරුෂ සංවර්ධනයෙහිලා සමථ භාවනාවේ අවශ්‍යතාව හඳුනා ගනිමින් පෞරුෂය සංවර්ධනය කිරීම මෙම පර්යේෂණයේ අරමුණයි. පුද්ගල පෞරුෂයේ ධනාත්මක සංවර්ධනයට සමථ භාවනාවේ සමසතළිස් කර්මස්ථාන උපයුක්ත වන බව මූලාශ්‍ර අධ්‍යනයෙන් තහවුරුවේ. එම අරමුණු සාධනයෙහිලා ගුණාත්මක පර්යේෂණ ක්‍රමවේදය මත පදනම්ව ප්‍රාථමික මූලාශ්‍රය වශයෙන් මජ්ඣිම නිකායේ ආනාපානාසති සූත්‍රය, දීඝ නිකායේ මහා ගෝවින්ද, සාමඤ්ඤඵල සූත්‍රය, විශුද්ධිමාර්ගය හා ද්විතියික මූලාශ්‍රය වශයෙන් කෝෂ ග්‍රන්ථ ඇතුළු ලිපි ලේඛන පරිශීලනය සිදු කර ඇත. පෞරුෂය සංවර්ධනය විෂයෙහි රාග, ද්වේශ, මෝහ, සද්ධා, බුද්ධි හා විතර්ක යනාදී පුද්ගල චරිතානුකූලව නිර්මාණය කළ භාවනා අරමුණු හතළිහට කසිණ භාවනා, අසුභ භාවනා, අනුස්සති, ආනාපානසති, බ්‍රහ්මවිහාර සහ අරූප භාවනා ඇතුළත් වේ. ආනාපානසති භාවනාවේ හුස්ම නිරීක්ෂණය චිත්තවේග පාලනයට සෘජුවම උපකාරීවන අතර ආතතිය, කෝපය, භය, කාංසාව වැනි සෘණාත්මක සිතිවිලි පහකොට ස්වයං දැනුවත්භාවය, සන්සුන්කම තුළින් පෞරුෂය සංවර්ධනය කිරීමෙහිලා කමටහන් වැඩීම ඉවහල්වන බව ආනාපානාසති සූත්‍රයෙන් හෙළිවේ. මෙත්ත සූත්‍රය මෙන්ම විසුද්ධිමග්ගය තුළ එන සිව්බඹ විහරණ පිළිබඳ වන කමටහන් මෛත්‍රිය, කරුණාව, මුදිතා හා උපේක්ඛාව ඇසුරින් ද්වේශය ඊර්ෂ්‍යාව දුරුකොට සන්තුෂ්ඨිය, අනුකම්පාව වැනි මානව ගුණධර්ම පෝෂණය කිරීමෙහිලා සමත්වීමෙන් එය වඩාත් තහවුරුවේ. තවද සමථ භාවනාවේ සතර අරූප කමටහන් ගැඹුරු මනෝ විශ්ලේෂණාත්මක, විචාරශීලීමය ගුණාත්මක පෞරුෂත්ව වර්ධනයකට වැදගත් වේ. ඒ අනුව සමථ භාවනාවේ සමසතළිස් කර්මස්ථාන වැඩීමෙන් පුද්ගලයාගේ පෞරුෂය සංවර්ධනය කළ හැකි බව මෙයින් නිගමනය කළ හැකිය.

ප්‍රමුඛ පද: පෞරුෂය, සංවර්ධනය, සමථ භාවනාව, සමසතළිස් කර්මස්ථාන, චිත්තවේග

Synopsis: This study examines the effects of Samatha meditation on psychological well-being and mental stability. It highlights how sustained practice of Samatha cultivates focused attention, calmness, and emotional balance, supporting both personal growth and ethical behavior. Drawing on canonical Buddhist texts and contemporary interpretations, the research identifies practical strategies for developing concentration, reducing mental agitation, and fostering resilience. Findings suggest that regular Samatha practice enhances mindfulness, emotional regulation, and self-discipline, while promoting virtues such as patience, contentment, and clarity of mind. Overall, the study concludes that integrating Samatha meditation into daily life provides a solid foundation for holistic well-being and contributes to a balanced, harmonious lifestyle.

MEDITATION AS AN IMMUNOMODULATORY TOOL: EVIDENCE FOR CYTOKINE MODULATION

Razna MRF[1*] and Sapra MSF[1]

[1]Department of Unani Pharmacology, Faculty of Indigenous Medicine, University of Colombo, Sri Lanka

missramzi7@gmail.com

Cytokines are small glycoprotein signaling molecules secreted by immune cells that orchestrate inflammatory responses to infections and injuries. Proinflammatory cytokines (IL-1, TNF-α, IL-6), IFN-γ, and CRP trigger acute protection, but when persistently elevated, they can lead to neuroinflammation, brain dysfunction, oxidative stress, autoimmune disorders, cancer, inflammatory bowel disease, and depression. The NF-κB transcription pathway amplifies cytokine gene expression. Meditation practices rooted in Hinduism and Buddhism cultivate mental presence and resilience while modulating the brain–endocrine–immune–gut axis via HPA axis regulation, autonomic nervous system balance, sympathovagal tone, glucocorticoid sensitivity, and cholinergic pathways. A comprehensive review of scholarly articles from 2000 to 2025 was conducted to explore meditation's effects on inflammation-related cytokines. English-language literature was systematically searched across PubMed, Google Scholar, Scopus, Springer, and ScienceDirect using keywords including meditation, inflammation, cytokines, pro-inflammatory cytokines, and anti-inflammatory cytokines. Studies of any type assessing immunomodulatory outcomes, cytokine profiles (IL-6, TNF-α, IL-10, IL-1β), and inflammatory pathways were examined. Meditative practices performed consistently over 2–6 weeks were associated with reductions in proinflammatory cytokines (IL-6, TNF-α, IL-1β, IL-12, IL-8), CRP, NF-κB activity, and IL-6/IL-10 ratios, while increasing anti-inflammatory IL-10 and IL-4, brain-derived neurotrophic factor, IFN-γ–secreting cells, glucocorticoid/interferon regulatory factor signaling, vagal tone, and NK/T-cell function. Intensive practice altered the methylomes of peripheral blood mononuclear cells at 61 sites enriched in immune and aging genes (KLF15, EGR1/2, SP3/4, TNF-α/NF-κB genes TBKBP1, TNFSF13B). Notably, these immunomodulatory effects persisted for up to three months and were consistently observed across diverse clinical cohorts, including individuals with cancer, fibromyalgia, HIV/AIDS, and COVID-19. Meditation exerts systemic, durable immunomodulatory effects through epigenetic reprogramming, NF-κB downregulation, and psychoneuroimmunological pathways, highlighting its potential as a safe, non-pharmacological adjunct for inflammatory and age-related conditions. Nevertheless, further research is needed to clarify underlying mechanisms, define optimal practice parameters, and assess long-term outcomes across diverse populations.

Keywords: *Cytokines, Inflammation, Immunomodulation, Meditation, Biomarkers of Inflammation*

UNDERSTANDING THE IMPORTANCE OF *ĀNĀPĀNASATI* MEDITATION FOR PSYCHOLOGICAL WELL-BEING THROUGH CANONICAL, SCIENTIFIC, AND PRACTICAL PERSPECTIVES

Samaraweera KTC

Faculty of Medicine, University of Colombo, Sri Lanka

2023pgdcp52@stu.cmb.ac.lk

The *Ānāpānasati* meditation (AM), as explained in the *Ānāpānasati* Sutta, has been shown through research to positively influence social and behavioral outcomes, contributing to an enhanced quality of life (QL). This study explores the connection between the *Ānāpānasati Sutta* in the *Theravāda* canon, research on breath-based meditations (BBM), and a discussion-based case study with a Sri Lankan monastic Bhikkhu. The objective was to understand the significance of AM for psychological well-being and its impact on QL. The methodology combined a literature review of canonical texts and relevant research with a discussion-based individual case study on meditation experiences. According to the *Ānāpānasati Sutta, Satipaṭṭhāna*—which emphasizes awareness of the body, feelings, mind, and mental objects—forms the foundation of mindfulness, while the Satta Bojjhaṅga—focusing on mindfulness, investigation of mental objects, effort, joy, calm, concentration, and balance—supports meditation and psychological equilibrium, ultimately leading to *Vijjāvimutti*, or liberation through wisdom. AM is therefore considered a highly beneficial practice for meditators. Research further indicates that BBM enhances mental well-being, resilience, mindfulness, QL, psychological and physical health, reduces stress and anxiety, and increases happiness. Insights from the Bhikkhu highlighted improvements in concentration, mindfulness, sleep quality, spirituality, QL, and both mundane and transcendental happiness, with no observed discrepancy between personal practice and canonical guidance. In conclusion, both AM and BBM positively influence psychological well-being and QL, with corroborative evidence from canonical, scientific, and practical perspectives. Limitations include the limited research specifically on AM, the fact that BBM may not fully reflect pure AM, and the subjectivity of personal experiences. Nonetheless, further research is warranted to investigate in greater depth the effects of AM on psychological well-being and quality of life.

Keywords: *Anāpānasati meditation practice, Psychological wellbeing, Quality life*

ENHANCING QUALITY OF LIFE: AN EVIDENCE-BASED STUDY ON A SIX WEEK MINDFULNESS MEDITATION PROGRAM

Senewirathna UY

Sathipasal Foundation, Sri Lanka

ushmitha180@gmail.com

Meditation has been increasingly recognized as a powerful practice for enhancing overall quality of life by supporting mental, emotional, and physical well-being. This study aimed to examine the effectiveness of a six-week daily mindfulness meditation program in improving participants' perceived quality of life, focusing specifically on stress reduction, emotional balance, and overall well-being. A total of 50 adults aged 25–55 participated in the study. Demographic data collected included age, gender, educational background, and employment status. Participants practiced 20–30 minutes of guided mindfulness meditation daily. Data were collected using standardized tools, including the WHOQOL-BREF Quality of Life Questionnaire, Perceived Stress Scale (PSS), and a short Emotional Regulation Self-Assessment. Pre- and post-intervention analyses revealed significant improvements. Stress levels decreased by an average of 28% ($p < 0.01$), overall life satisfaction scores increased by 22%, emotional balance improved by 18%, and sleep quality scores improved by 25%. Participants also reported qualitative benefits, such as greater emotional clarity, increased patience, and improved coping with daily challenges. Improvements were further observed in social interactions and workplace functioning. These findings indicate that regular mindfulness meditation is an effective and practical method to enhance overall quality of life. By promoting mental clarity, emotional resilience, and physical relaxation, meditation supports sustainable well-being across multiple domains. Integrating structured meditation programs into educational, workplace, and community settings may contribute to long-term improvements in life satisfaction. Future research should investigate long-term outcomes, compare different meditation techniques, and evaluate the program's applicability across broader populations.

Keywords: *Mindfulness Meditation, Quality of Life, Stress Reduction, Emotional Well-Being*

EFFECT OF SHORT-TERM MINDFUL AWARENESS PRACTICE (MAP) ON KYNURENINE PATHWAY GENE EXPRESSION IN MILD COGNITIVE IMPAIRMENT (MCI)

Thinzar M[1], Myint K[2], Santiago C[3], Guillemin G[4], Beh GC[5], Aung HH[3], May WW[6] and Kyaw MT[3*]

1School of Post Graduate Studies, IMU University, 57000, Bukit Jalil, Kuala Lumpur, Malaysia
[2]Department of Physiology, Faculty of Medicine, University of Malaya, 50603, Kuala Lumpur, Malaysia
[3]Human Biology Department, School of Medicine, IMU University, 57000, Bukit Jalil, Kuala Lumpur, Malaysia
[4]ICTRYM Pty Ltd, NSW, Australia
[5]Department of Geriatric Medicine, Hospital Tuanku Ja'afar Hospital,70300, Seremban, Malaysia
[6]International Medical School, Management and Science University, Seksyen 13, 40100, Shah Alam, Selangor, Malaysia
mmoethidakyaw@imu.edu.my / oethidakyaw@imu.edu.my

Mild Cognitive Impairment (MCI) is an intermediate stage between normal cognitive aging and dementia, with its progression to Alzheimer's disease (AD) strongly driven by neuroinflammation resulting from dysregulation in the Kynurenine Pathway (KP) of tryptophan (TRP) metabolism. Overactivation of its rate-limiting enzymes, indoleamine 2,3-dioxygenase (IDO) and tryptophan 2,3-dioxygenase (TDO), promotes the generation of neuroactive and pro-oxidative metabolites. Despite the high prevalence of MCI among the geriatric population, it currently lacks specific treatment. Mindfulness-based interventions may offer a safe and accessible means of modulating neuroinflammatory processes. This pilot study investigates the effects of Short-Term Mindful Awareness Practice (MAP), a non-pharmacological strategy, on modulating KP gene expression in individuals diagnosed with MCI. Patients with MCI (MoCA score 18–25) were randomized into two cohorts for 21 days: a MAP group (n = 17, 65.8 ± 7.9 years) undertaking guided focused breathing and body scan, and a control group (n = 19, 68.6 ± 11.3 years) receiving standard care and familiar support. Serum samples were collected at baseline and Day 21. Gene expressions of the KP rate-limiting enzymes, IDO and TDO, were determined in a randomly selected subset of participants (n = 10 per group). The 21-day MAP intervention significantly decreased the gene expressions of both IDO ($p < 0.01$) and TDO ($p < 0.01$), whereas the control group showed no significant change in these gene expressions. Short-term MAP appears to shift the KP toward a less pro-inflammatory state in individuals with MCI, suggesting a potential role for mindfulness-based interventions in reducing neuroinflammatory drivers linked to cognitive decline. These preliminary results support further investigation using larger cohorts, longer intervention periods, and comprehensive metabolite and cognitive profiling to clarify MAP's capacity to modulate neuroinflammation and slow MCI progression.

Keywords: *Mindfulness, Kynurenine pathway, Gene expression, Mild Cognitive Impairment*

INTEGRATING DANCE AS MOVING MEDITATION INTO HUMAN RESOURCE MANAGEMENT: A SYNERGISTIC APPROACH TO ENHANCING EMPLOYEE ENGAGEMENT, ORGANIZATIONAL HARMONY, AND WELL-BEING

Wijegunasekare N[1]*, Ranaweera B[1], Herath SS[2], Perera G[1] and Kumarasinghe N[3]

[1]Department of Theatre, Ballet and Modern Dance, Faculty of Dance and Drama, University of the Visual and Performing Arts, Colombo, Sri Lanka
[2]Department of Multimedia Arts, Faculty of Visual Arts, University of the Visual and Performing Arts, Colombo, Sri Lanka
[3]David Peiris Motor Company, Colombo, Sri Lanka
nirosha.w@vpa.ac.lk

Contemporary human resource management increasingly explores contemplative and embodied approaches to strengthen employee engagement, collaboration, and workplace well-being. This study investigates the integration of dance as moving meditation within organizational settings. The concept of moving meditation has deep historical roots in ancient ritual movement traditions, including South Asian classical forms, Sri Lankan ritual practices, Sufi whirling, and Indigenous trance dances, where rhythmic repetition fostered meditative states and embodied awareness. In modern practice, diverse approaches have emerged, including Gabrielle Roth's 5Rhythms movement practice and Osho's dynamic meditation methods, which integrate mindful movement with meditative awareness. Using a mixed-methods design, this study evaluated weekly mindfulness-based dance sessions conducted over three months with 21 employees across 18 departments. Results demonstrated significant positive outcomes: 71.5% rated their experience as "excellent," 85.7% reported improved stress management, and job satisfaction increased markedly from 57.1% pre-intervention to 90.5% post-intervention. All participants (100%) reported enhanced organizational harmony, while 95.2% experienced stronger interpersonal connections with colleagues. Collaboration skills improved unanimously, with 66.7% strongly agreeing and 33.3% agreeing, and 52.4% strongly believed the intervention aligned with organizational values. Overall, 66.7% rated the program as "very effective" for employee satisfaction. These preliminary findings suggest that integrating dance-based moving meditation can meaningfully complement traditional human resource strategies by addressing the physical, emotional, and social dimensions of employee experience. Such embodied mindfulness practices promote organizational harmony and offer scalable contemplative approaches suited to contemporary workplace culture, and future research should examine long-term effects on retention, organizational performance, and optimal intervention frequency.

Keywords: *Moving meditation, Dance intervention, Employee engagement, Workplace well-being, Human resource management, Organizational harmony, Mindfulness practice*

DEVELOPING A METHODOLOGICAL FRAMEWORK FOR TEACHING THROUGH MEDITATION IN HOLISTIC EDUCATION

Wijerathna DDMIL

Faculty of Education, University of Colombo, Sri Lanka

wijerathna.81.1506@gmail.com

Education embraces the development of the whole person, which includes cognitive, emotional, social, physical, moral, and spiritual dimensions. Meditation is known to enhance attention and cognitive focus in learning environments. In practice, much of contemporary schooling focuses on cognitive outcomes, leading to fragmented learning and a lack of attention to emotional and moral development. This study responds to this need by developing a methodological framework for integrating meditation as an educational tool to support holistic education. Anchored in an extensive literature review of meditation, educational psychology, and holistic education, the framework draws specifically on the principles and practices of Buddhist meditation to support moral and mental development. Meditation supports holistic educational goals by integrating emotional, moral, and spiritual dimensions. In this study, the design and development research methodology is implemented in three iterative phases: analysis, planning, and development/evaluation. First, the analysis phase identified teachers' prerequisites and needs for effective implementation of meditation in the classroom. Second, the design phase established the framework's basic principles, structure, and instructional guidelines. The third phase, development and evaluation, refined the framework through expert feedback and observations conducted in pilot classrooms. The proposed framework includes three main components: (1) preparatory practices to create a conducive learning environment, (2) short, adaptable meditation practices such as mindful breathing and loving-kindness exercises integrated into lessons, and (3) post-meditation integration through reflective discussion and connections to subject content. At the heart of the framework is the teacher's role as a facilitator, modeling mindfulness, compassion, and ethical behavior. Modeling teacher mindfulness improves student engagement and classroom climate. This structured, culturally sensitive framework will provide educators with a way to systematically move beyond traditional pedagogical methods toward approaches that embrace the interdependence of body, speech, and mind. By incorporating meditation into education, it aims to improve students' concentration, emotional intelligence, moral reasoning, and overall well-being, thereby promoting their overall development and contributing to classroom harmony and global understanding.

Keywords: *Meditation-based teaching, Holistic education, Mindfulness practices, Student well being, Classroom harmony*

THE SOCIAL TRANSFORMATION OF CONTEMPORARY CHINESE MEDITATION PRACTICE: FROM DIVERSIFIED EXPLORATION TO STANDARDIZED DEVELOPMENT

Xiaodong L

Postgraduate Institute of Pali and Buddhist Studies (PGIPBS) University of Kelaniya, China
lliu20223@gmail.com

This study examines the social transformation of contemporary Chinese meditation practice from diversified exploration to standardized development since the early twenty-first century. Drawing on qualitative research conducted between 2005 and 2025, it integrates literature analysis, fieldwork observation, and social network analysis to trace the evolving structure of meditation training programs and the increasing involvement of traditional Buddhist temples and university academic institutions. First-hand data were gathered through in-depth fieldwork with meditation groups in Han-majority regions of mainland China. Contemporary Chinese meditation has experienced significant expansion, driven by the rise of an educated and affluent middle class, widespread internet access, improved transportation, and growing societal demand for spiritual fulfillment. While rapid industrialization and diversification have broadened access to meditation training, they have also generated uneven quality and occasional negative outcomes. In response, traditional Buddhist temples have launched more systematic and standardized meditation programs, successfully attracting practitioners away from commercial offerings, while Chinese universities have promoted academic research on mindfulness, providing scientific legitimacy for meditation practice. Overall, Chinese meditation is shifting from an early phase of disorderly diversification toward a new stage characterized by scientification and standardization, contributing to a more stable and sustainable cultural ecosystem of spiritual practice.

Keywords: *Meditation, Socialization, Standardization, Contemporary China*

ABSTRACTS OF
PHD CANDIDATES OF CMR

A SYSTEMATIC REVIEW OF THE IMPACT OF MIND-BODY EXERCISES ON FALLS, FEAR OF FALLING, AND FREEZING OF GAIT IN PARKINSON'S DISEASE

Bogahawatta BDPA[1*], Wettasinghe AH[1] and Dissanayake WDN[2]

[1]Department of Allied Health Sciences, Faculty of Medicine, University of Colombo, Sri Lanka
[2]Department of Physiology, Faculty of Medicine, University of Colombo, Sri Lanka
puraniarunodha1119@gmail.com

Mind–body exercise is a form of multicomponent exercise that integrates movement, breathing, and attention. However, its effectiveness for fall prevention in Parkinson's disease (PD) remains unclear. This review aimed to evaluate the effects of mind–body exercises on falls, fear of falling (FoF), motor function (freezing of gait (FoG), balance, mobility, muscle strength, motor symptoms), cognitive function, and quality of life (QoL) in people with PD. PubMed, PEDro, and Cochrane databases were searched for randomized controlled trials (RCTs) published up to 18 May 2024 involving people with PD (≥40 years, Hoehn & Yahr stage I–III, without mental illness) that compared mind–body exercises (tai chi, yoga, qigong, Pilates) of ≥1 week duration with non-exercise controls. Where possible, data were synthesized in meta-analyses using RevMan with a random-effects model; otherwise, results were reported narratively. A review of 23 RCTs involving 842 participants found that mind–body exercises significantly improved balance (MD: 2.39, 95% CI: 1.47 to 3.31, $p < 0.00001$), mobility (MD: −1.02, 95% CI: −1.37 to −0.68, $p < 0.00001$), Unified Parkinson's Disease Rating Scale-Part III score (MD: −4.61, 95% CI: −6.49 to −2.72, $p < 0.00001$), cognitive function (MD: 1.37, 95% CI: 0.39 to 2.35, $p = 0.006$), and QoL (MD: −7.00, 95% CI: −11.73 to −2.27, $p = 0.004$). Muscle strength improved significantly, particularly in the lower extremities following 12-week yoga and 8-week Pilates, and in the upper body with tai chi (all $p < 0.05$). Evidence for falls was limited to one trial, showing a reduction from 48.7% to 21.6% at 6 months. No significant improvements were found for FoF (SMD: −0.11, 95% CI: −0.64 to 0.42, $p = 0.69$) or FoG (MD: −0.24, 95% CI: −3.36 to 2.88, $p = 0.88$). Mind–body exercises may improve motor and cognitive functions and QoL in people with PD, but further research is needed to determine their effectiveness in preventing falls.

Keywords: *Accidental falls, Tai chi, Yoga, Fear of falling, Freezing of gait, Parkinson's disease, Meta-analysis*

EFFECTS OF MEDITATION ON GLYCEMIC CONTROL IN PATIENTS WITH TYPE 2 DIABETES MELLITUS "MINDDM": A RANDOMIZED CONTROLLED TRIAL

Dalpatadu KPC[1], Katulanda P[2], Galappatthy P[1], Jayasinghe S[2]

[1]Department of Physiology, Faculty of Medicine, University of Colombo, Sri Lanka
[2]Department of Clinical Medicine, Faculty of Medicine, University of Colombo, Sri Lanka
[3]Department of Pharmacology, Faculty of Medicine, University of Colombo, Sri Lanka
chamila@physiol.cmb.ac.lk

Introduction and objectives: Managing psychological stress in type 2 diabetes(DM) is important as it affects physiological, psychological, social domains. Aim was to evaluate effects of mindfulness meditation intervention on glycemic control in DM.

Methodology: Open-label, randomized-controlled clinical trial was conducted in Faculty of Medicine Colombo. DM patients who've never meditated were randomized into meditation(M) and control(C) groups;1:1 allocation. M&C received usual care. M underwent mindfulness meditation program weekly for 12 weeks.Primary outcome: HbA1c. Secondary glycaemic outcomes: FBS, fructosamine, calculated insulin resistance (HOMA-IR).

Results: Allocation; n=32. There was no significant difference in mean, age, DM duration, number of antidiabetic drugs, Montreal Cognitive Assessment (p=0.28,p=0.21 ,p=0.15,p=0.66). Intention to treat protocol was used without missing data imputation.

Comparison of baseline glycemic outcomes in two arms: FBS(M:7.03±2.08vsC: 8.03± 3.05mmol/L; p=0.14), HbA1c(M:7.5±1.46vsC:8.16±2.12%;p=0.17), fructosamine(M:321.38±83.29vs C:331.01±92.12 mmol/L; p=0.7), HOMA-IR(M:4.02±2.39vsC:4.33±3.68;p=0.69).

There's no significant changes in post intervention mean FBS(M:7.19 ±3.07vs C: 7.42 ±2.96;p=0.77), HbA1c(M: 7.39±1.89 vs C: 7.78±1.71;p=0.42), fructosamine(M: 336.15±56.70338)vs C: 377.21±84.4 ; p=0.95), HOMA-IR (4.34±2.99 vs C: 5.44±3.68;p=0.27).

Percentage of patients with reduction of,HbA1c in M 73.3% vs C 68% (p=0.66) & HOMA-IR in M 46.6% vs C 28% (p=0.15). When the pre and post mean changes were compared within groups there's no significant changes in FBS, HbA1c, HOMA-IR in M(p=0.72,p=0.4,p=0.58) and C(p=0.96,p=0.33,p=0.38). However, there's significant increase in fructosamine in C(p=0.047) compared to non-significant increase in M(p=0.35).

Conclusion: Non-significant reduction in HbA1c was seen in both groups. Fructosamine increased in both groups but statistical significance noted only in control group. Confounders could have affected the fructosamine change. Further studies are required to confirm these results and discover underlying mechanisms responsible.

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ASSOCIATIONS OF MEDITATION WITH TELOMERE DYNAMICS: A CASE– CONTROL STUDY IN HEALTHY ADULTS

Dasanayaka NN[1*], Sirisena ND[2] and Samaranayake N[3]

[1]Research Promotion and Facilitation Centre, Faculty of Medicine, University of Colombo, Sri Lanka
[2]Department of Anatomy, Genetics & Biomedical Informatics, Faculty of Medicine, University of Colombo, Sri Lanka
[3]Department of Parasitology, Faculty of Medicine, University of Colombo, Sri Lanka
nirodhidasanayaka@gmail.com

Introduction: Telomeres are protective end caps of chromosomes which naturally shorten with each cell division and thus with age. Short telomeres have been associated with many age-related diseases. Meditation has come to the fore as a mind–body practice which could influence the telomere dynamics underlying these phenomena. We previously reported meditation to be associated with higher telomerase levels, mindfulness and quality of life. Here, reporting on the same study population, we describe associations between long-term meditation and telomere length (TL), expression of hTERT and hTR genes and methylation of the promoter region of hTERT gene.

Methods: Thirty healthy meditators and matched non-meditators were recruited. TL was measured using quantitative PCR, gene expression was assessed using reverse transcriptase PCR, and methylation level was quantified by bisulfite- specific PCR followed by Sanger sequencing. Comparisons between meditators and controls were carried out using t-tests, while Pearson correlation was used to identify correlations, and regression was used to identify predictors.

Results: Males comprised 63.4% of each group with an average age of 43years. On average, they had meditated daily for 5.82h (±3.45) for 6.8years (±3.27). Meditators had longer relative TLs ($p = 0.020$), and TL decreased with age ($p < 0.001$) but was not associated with other socio-demographic variables. Regression analysis showed that age ($p < 0.001$) and duration of meditation ($p = 0.003$) significantly predicted TL. The meditators showed higher relative expression of hTERT ($p = 0.020$) and hTR ($p = 0.029$) genes while the methylation level of the promoter region of hTERT gene was significantly lower when compared to non-meditators ($p < 0.001$). Negative correlations were identified between the methylation level of the promoter region of hTERT gene and the expression of the hTERT gene ($p = 0.001$) and duration of meditation ($p = 0.001$).

Conclusion: The findings suggest that meditation as a lifestyle practice has multi- level beneficial effects on telomere dynamics with potential to promote healthy aging.

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MINDFUL SWALLOWING TRAINING (MST): TRIANGULATED INTEGRATIVE DEVELOPMENT FOR ENHANCING SWALLOWING AND QUALITY OF LIFE IN STROKE SURVIVORS WITH DYSPHAGIA

Jinadasa T[1]*, Dalpatadu C[2] and Jayasinghe S[2]

[1]Faculty of Graduate Studies, University of Colombo, Sri Lanka
[2]Faculty of Medicine, University of Colombo, Sri Lanka
thanujajinadasa1995@gmail.com

Post-stroke dysphagia compromises swallowing safety, respiratory–swallow coordination, emotional well-being, and social participation, leading to reduced quality of life (QoL). Conventional rehabilitation prioritizes compensatory or physiological approaches. However, emerging evidence shows that mindfulness influences neural and autonomic mechanisms closely linked to swallowing control, enhancing interoceptive processing, lowering sympathetic arousal, and improving breathing regulation. These mechanisms may modify sensorimotor pathways involved in swallowing, supporting the integration of mindfulness into dysphagia rehabilitation. This study aimed to develop a preliminary Mindful Swallowing Training (MST) using a structured, triangulated method that integrates evidence from multiple scientific streams. A triangulated process was employed, comprising: (1) a scoping review of mindfulness-based interventions relevant to neurogenic dysphagia and swallowing physiology; (2) semi-structured interviews with experienced mindfulness practitioners to identify safe, feasible, and culturally appropriate applications; and (3) synthesis of neurophysiological evidence describing how mindfulness modulates cortical–subcortical networks, autonomic regulation, muscle tension, and interoceptive monitoring. Convergent insights were mapped to construct the preliminary MST. The emerging MST integrates breath–swallow synchronization, interoceptive attention to oral–pharyngeal sensations, mindful pacing and eating routines, body scans focused on swallowing musculature, acceptance and loving-kindness practices, and everyday mindfulness. Core design principles include personalization, gradual progression, appropriate posture, and safety. MST suggests potential benefits for swallow safety, bolus control, respiratory–swallow coordination, improved sensory-motor awareness, reduced fear of choking, enhanced confidence, and improved social mealtime experience. MST represents a novel, theoretically grounded mindfulness-based intervention for dysphagia rehabilitation. The triangulated development approach demonstrates a rigorous and replicable methodology for designing mindfulness-based clinical interventions. Next steps include Delphi validation, feasibility testing, and evaluation of effectiveness.

Keywords: *Mindful Swallowing, Dysphagia Rehabilitation, Post-Stroke intervention, Mindfulness-Based Therapy*

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CARDIOVASCULAR AUTONOMIC FUNCTION IN HEALTHY LONG-TERM MEDITATORS: A COMPARATIVE CROSS-SECTIONAL STUDY

Karunarathne LJU[1], Nanayakkara I[2], Amarasiri WADL[3], Waidyarathne AOK[3], Gomis PDL[3], Fernando ADA[3]

[1]Department of Physical Medicine, National Hospital of Colombo, Sri Lanka
[2]Department of Physiology, Faculty of Medicine, University of Peradeniya, Sri Lanka
[3]Department of Physiology, Faculty of Medicine, University of Colombo, Sri Lanka
udanikarunarathne90@gmail.com

Introduction: Meditation is thought to modulate the autonomic nervous system. There is a paucity of data on autonomic function in Sri Lankan meditators.

Objectives: We aimed to access cardiovascular autonomic function in a group of Sri Lankan healthy long-term meditators (LTMs).

Methods: This study included eighteen skilled LTMs (laity) practicing Buddhist meditation consistently >3 years, selected through a validated intake-interview. Eighteen age-sex matched non-meditator controls were selected through purposive sampling. Cardiovascular autonomic function was assessed using a standard battery of tests; Heart rate (HR) and blood pressure (BP) response to active standing (LTS), deep breathing test, Valsalva maneuver and isometric hand grip (IHG) test. Testing started following 30-minutes supine rest in a controlled environment at same time each day, using Power Lab / Dual Bio Amp (AD Instruments, Australia) and Lab Chart 8 software. HR, respiration and BP were recorded by Lead II ECG, respiratory belt transducer and calibrated automated BP meter respectively. Data were analyzed using parametric and nonparametric tests.

Results: The LTMs (50% male; mean (SD) age 41.44 (12.28) years) and the controls (50% male; mean (SD) age 43.39 (8.51) years) were comparable. LTMs had meditated mean (SD) 12.28 (7.18) years. Sympathetic parameters; Mean (SD) of SBP change in response to LTS [5.89 (7.25) vs. 10.17 (5.01) mmHg, p =0.007] and rise in DBP in response to IHG [22.78 (5.07) vs. 28.67 (7.87) mmHg, p =0.012] were lower in LTMs and parasympathetic parameters; Delta HR, E: I ratio, Valsalva ratio and 30:15 ratio were higher (p >0.05) in LTMs than controls. Delta HR (r_s= 0.532, p =0.023) and E: I ratio (r_s= 0.538, p =0.021) of LTMs correlated with frequency of meditation practice, mean (SD) 10.17 (4.57) hours per week.

Conclusions: Autonomic function test parameters observed suggest an increased parasympathetic and decreased sympathetic activity in LTMs compared to controls.

Keywords: *Autonomic function, Cardiovascular reflex testing, Long-term meditation*

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ASSOCIATION BETWEEN MEDITATION PRACTICES WITH MINDFULNESS SKILLS OF OBSERVING AND NON-REACTIVITY TO INNER EXPERIENCES: A CORRELATIONAL ANALYSIS FROM SRI LANKA

Outschoorn, NO[1], Herath, HMJC[2], Amarasuriya, SD[3]

[1]Research Promotion and Facilitation Centre, Faculty of Medicine, University of Colombo, Sri Lanka
[2]Department of Social Science Education, Faculty of Education, University of Colombo, Sri Lanka
[3]Department of Medical Humanities, Faculty of Medicine, University of Colombo, Sri Lanka
omella@med.cmb.ac.lk

Introduction: Non-reactivity to inner experiences (i.e., allowing emotions and thoughts to come and go without being affected by them) and observing of internal thought processes are crucial mindfulness skills that are often cultivated through meditative practices and may foster mental states of calmness, concentration and awareness. This study explored the associations between the aforementioned skills and meditation experience of skilled meditators.

Method: Upon providing informed consent, a purposive sample of skilled meditators (n=54); 1) between the ages of 18-65 years, 2) practicing meditation for more than three years, 3) following meditation practices taught in Sri Lankan Buddhist meditation centers/temples/monasteries, and 4) identified through *The University of Colombo Intake Interview to identify Skilled Meditators for scientific research (UoC-IISM)* developed by the research group, completed a demographic details questionnaire and the judgmentally validated and internally consistent Sinhala Five Facet Mindfulness Questionnaire (FFMQ-39-SIN - quantifies total mindfulness and its five facets; *describing, observing, acting with awareness, non-judging of inner experiences* and *non-reactivity to inner experiences*). Individuals with a psychiatric/psychological history and those who practiced other relaxation methods (e.g., yoga, chi-gong) were excluded. All data were analyzed at $\alpha = 0.05$ and Pearson's correlation coefficient (r) was found to explore associations between variables. The Ethics Review Committee of the Faculty of Medicine, University of Colombo has approved this study (EC-19-095).

Results: The skilled meditators' age ranged from 27-59 (M=41.09, SD=9.01) years and they reported 2-25 (M=8.96, SD=5.96) hours of meditation per week and 3-21 (M=7.89, SD=4.35) years of meditation practice. Correlational analyses; the number of years of meditation (r=.330, p=.015) and meditation hours per week (r=.340, p=.012) showed a positive association with *non-reactivity to inner experiences* while the number of years of meditation (r=.276, p=.044) showed a positive association with *observing.* Skills of *describing, acting with awareness,* and *non-judging of inner experiences* did not show associations with any practice-related variables.

Conclusion: Increased years of meditation practice and practice hours per week are associated with increased non-reactivity to inner experiences and increased years of meditation practice is associated with increased observing in skilled meditators who follow meditation as practiced in the Sri Lankan context.

Keywords: *Buddhist-based meditation, mindfulness, non-reactivity to inner experiences, skilled meditators*

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MEDITATION-BASED APPROACHES FOR INTRAOCULAR PRESSURE CONTROL IN PRIMARY OPEN-ANGLE GLAUCOMA: A SYSTEMATIC REVIEW AND META-ANALYSIS OF RANDOMISED CONTROLLED TRIALS

Ranasinghe, PM[1*], Dissanayake, DWN[2] and Dissanayake, MM[3]

[1]Department of Optometry, Faculty of Allied Health Sciences, University of Sri Jayewardenepura, Sri Lanka
[2]Department of Physiology, Faculty of Medicine, University of Colombo, Sri Lanka
[3]Department of Anatomy, Genetics and Bioinformatics, Faculty of Medicine, University of Colombo, Sri Lanka
pooja.ranasinghe@sjp.ac.lk

Primary open-angle glaucoma (POAG) is a leading cause of irreversible blindness worldwide, with elevated intraocular pressure (IOP) as its most significant modifiable risk factor. While standard medical therapy relies on topical ocular hypotensive agents, emerging evidence suggests that meditation-based interventions may influence IOP regulation through modulation of autonomic function and ocular vascular dynamics. The objective of this systematic review and meta-analysis was to assess the impact of meditation-based interventions on reducing IOP among patients with POAG compared with standard medical treatment. A comprehensive search of randomized controlled trials (RCTs) was conducted across MEDLINE/PubMed, CINAHL, and Scopus from inception to 2025 using keywords including glaucoma, intraocular pressure/IOP, ocular circulation/perfusion, quality of life, and meditation. Eligible studies enrolled adults with POAG receiving meditation-based interventions as adjuncts to standard therapy, with IOP reduction as the primary outcome. Six RCTs involving 350 participants (aged 43–68 years) were identified, of which five high-quality trials were included in the meta-analysis. The studies primarily examined meditation-based interventions such as mindfulness and mindfulness-based stress reduction (MBSR). Pooled analysis demonstrated a statistically significant and clinically meaningful reduction in IOP, with a mean difference of 1.44 mmHg (95% CI: 0.91–1.97). No heterogeneity was observed ($Chi^2 = 2.09$, $df = 4$, $P = 0.72$; $I^2 = 0\%$), and the overall effect was highly significant ($Z = 5.33$, $P < 0.00001$). Additionally, meditation-based interventions were associated with improvements in stress markers and quality of life. Limitations included small sample sizes and variability in study designs. Meditation-based interventions show promise as adjunctive strategies for IOP modulation in POAG, and while current evidence supports their potential benefit alongside conventional therapy, larger, high-quality RCTs are required to establish definitive clinical recommendations.

Keywords: *Primary Open Angle Glaucoma (POAG), Meditation, Intraocular Muscle (IOP)*

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PREDICTION OF PER-HEAD CARBON FOOTPRINT THROUGH MINDFULNESS

Somarathne EASK [1,2*], Gunathunga MW[3] and Lokupitiya E[1]

[1]Department of Zoology and Environment Sciences, Faculty of Science, University of Colombo, Sri Lanka
[2]Research Promotion and Facilitation Center, Faculty of Medicine, University of Colombo, Sri Lanka
[3]Department of Community Medicine, Faculty of Medicine, University of Colombo, Sri Lanka
sanduni@med.cmb.ac.lk

The ability to pay attention to the present moment while retaining an open, nonjudgmental frame of mind is known as mindfulness. It has been known that practicing mindfulness acts as an activator of positive attitudes and behaviours. Awareness of the present moment plays a key role in low-carbon lifestyles. Hence the present research investigated the influential effects of mindfulness on per head carbon footprints of long-term mindfulness practitioners (n = 33). The *Sinhala* version of the Five Facet Mindfulness Questionnaire (FFMQ), which addresses five elements of trait mindfulness (i.e. non-reactivity to present moment experiences, observing, acting with awareness, describing and non-judging of experience) was used in the data collection. Per head carbon footprint was calculated using 14-day self-reported data under the domains of food and beverage consumption (CF_{FB}), electricity consumption at residence (CF_{EC}), travelling behaviour; (CF_{TB}) and solid waste disposal behaviour at residence; disposal done at the disposal site (CF_{SWDS}), open burning of solid waste (CF_{OB}). The results of the stepwise regression analyses indicated that acting with awareness negatively influenced ($p < 0.05$) per head carbon emissions except for CF_{SWDS}. The CF_{SWDS} was negatively influenced by the describing facet of mindfulness (R^2 = 52.20 %, $\beta = 0.02$, $p < 0.001$). The non-judging of experience facet of mindfulness was a significant predictor of the CF_{OB} (R^2 = 62.77%, $\beta = 0.01$, $p < 0.001$). Autocorrelations were not found for any significant regression model (VIF < 5, Durbin-Watson statistic range = 1.9 -2.5). We conclude that though mindfulness is a significant predictor of per-head carbon footprint, not all the domains of carbon footprint are significantly predicted by all the facets of mindfulness. Moreover, with higher mindfulness levels, lower carbon emissions could be anticipated.

Keywords: *per-head carbon footprint, carbon emission, mindfulness, climate change mitigation*

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EFFECTS OF MEDITATION ON DOPAMINE, GLUTAMATE AND GABA AMONG LONG-TERM SKILLED MEDITATORS IN SRI LANKA

Thambyrajah JC[1], Perera SA[2], Handunnetti SM[1], Dilanthi HW[3], Dissanayake DWN[4]

1Institute of Biochemistry, Molecular Biology and Biotechnology , University of Colombo, Sri Lanka
[2]Faculty of Medicine, University of Colombo, Sri Lanka
[3]Department of Biochemistry and Molecular Biology, , Faculty of Medicine, University of Colombo, Sri Lanka
[4]Department of Physiology, Faculty of Medicine, University of Colombo, Sri Lanka
sunesha.p2001@gmail.com

Studying the effects of meditation on neurotransmitters will shed light on the neurobiological basis and correlated neuroplastic changes. The current study aimed at comparing dopamine, glutamate, and GABA levels in blood in a group of long-term-skilled meditators with a one-on-one matched control group to explore the association of Buddhist meditation practices on these three neurotransmitters in one cohort.

A comparative analytical laboratory-based study was conducted on long-term skilled meditators (n = 30) and a non-meditator control (n = 30) group. Venous blood was collected from each participant to determine the neurotransmitter concentration. The neurotransmitter levels in blood were obtained using enzymatic immunoassay (ELISA).

There was no signi cant difference in socio demographic factors and habits between the long-term- skilled meditators (LTSM, age = 42.23 years ± 8.99) compared to controls (age = 42.2 ± 9.04). GABA levels were signi cantly higher in LTSM's with a mean concentration of 67.92 ng/ml (± 2.39 SE) compared to 61.21 ng/ml (± 1.37 SE) in the controls (p = 0.006). Similarly, the dopamine levels were also signi cantly higher in the LTSM compared to controls (LTSM, 134.8 ng/ml ± 18.2; Controls 94.7 ng/ml ± 15.5, p = 0.019). Glutamate levels were signi cantly lower in LTSM's compared to controls. (LTSM, 6.0 ug/ml ± 0.49; controls, 7.3 ug/ml ± 0.54, p = 0.008).

Meditation alters the levels of neurotransmitters in blood. Further research is needed to determine the potential use of meditation as a therapeutic tool to treat neurological and neuropsychiatric disorders which involve the imbalance of key neurotransmitters.

Keywords: *Meditation, Glutamate, GABA, Dopamine, Neurotransmitters*

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NITRIC OXIDE SYNTHASE ISOFORMS AND NF-KB SIGNALING IN LONG-TERM MEDITATORS

JC Thambyrajah[1], SM Handunnetti[1], DH Warawitage[2], WDN Dissanayake[3]

[1]Institute of Biochemistry, Molecular Biology and Biotechnology, University of Colombo, Sri Lanka
[2]Department of Biochemistry, Faculty of Medicine, University of Colombo, Sri Lanka
[3]Department of Physiology, Faculty of Medicine, University of Colombo, Sri Lanka
jcthamby@gmail.com

Background: Our previous study showed that long-term experienced meditators have higher serum antioxidant capacity and lower circulating nitric oxide metabolites (NOx) compared with non-meditating controls, suggesting altered nitric oxide (NO) metabolism. However, the molecular mechanisms underlying these changes remain unclear.

Objective: This follow-up study aimed to investigate whether alterations in nitric oxide synthase (NOS) isoforms and inflammatory signaling contribute to the modified NOx profile observed in long-term meditators.

Methods: This was a cross-sectional case-controlled study and ethics was obtained from ERC, FOM (EC-19-068). Serum levels of inducible nitric oxide synthase (iNOS), endothelial nitric oxide synthase (eNOS), neuronal nitric oxide synthase (nNOS), and the NF-κB p65 subunit were measured using ELISA in long-term meditators (n=18) and age- and sex-matched non-meditating controls (n=18).

Results: Long-term meditators exhibited significantly lower circulating iNOS (1154 ± 52 vs. 1288 ± 18 pg/mL, p = 0.025) and NF-κB (1.73 ± 0.02 vs. 1.83 ± 0.03 ng/mL, p = 0.035) compared with controls, indicating reduced inflammatory induction of high-output NO synthesis. In contrast, constitutive NOS isoforms were preserved or relatively higher in meditators, with no significant differences observed for eNOS (1041 ± 21 vs. 976 ± 19 pg/mL, p = 0.060) or nNOS (2.09 ± 0.03 vs. 1.97 ± 0.06 ng/mL, p = 0.098). These findings suggest that reduced NOx levels previously observed in meditators are primarily driven by downregulation of inflammatory NO pathways rather than suppression of constitutive NO production.

Conclusions: This study provides mechanistic evidence that long-term meditation is associated with altered nitric oxide regulation characterized by reduced inflammatory signaling and preserved constitutive NOS activity. These findings extend prior observations on NOx and antioxidant capacity and support a role for sustain ed meditation practice in modulating redox balance and immune pathways relevant to vascular and inflammatory health.

Keywords: *Meditation; Nitric oxide; iNOS; eNOS; nNOS; NF-κB; Oxidative stress; Antioxidant capacity*

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MEDITATION AS ADJUNCT THERAPY FOR PARKINSON'S DISEASE: EVALUATING MOTOR BENEFITS IN A RANDOMIZED CLINICAL TRIAL

Vithanage KK[1], Dissanayake DWN[1], Chang T[2]

[1]Department of Physiology, Faculty of Medicine, University of Colombo, Sri Lanka
[2]Department of Clinical Medicine, Faculty of Medicine, University of Colombo, Sri Lanka
kumarangie@physiol.cmb.ac.lk

Background/Aims: Parkinson's disease (PD) is a common neurodegenerative disorder characterized by an akinetic-rigid syndrome. While dopaminergic therapy remains the mainstay of treatment, it often fails to provide optimal symptom control. This study evaluated the efficacy of a meditation-based intervention (MBI) as an adjunct therapy for improving motor manifestations in PD.

Method: Forty-six PD patients (H&Y 1–3) were randomized into an intervention group (IG) and a usual-care group (UC). IG underwent an eight-week MBI alongside routine treatment. Motor function was assessed pre- and post-intervention using SPES/SCOPA-Motor (evaluating motor function, activities of daily living [ADL], and motor complications [MC]), the Timed-Up-and-Go (TUG) test, and tibial nerve conduction studies (NCS). Data were analyzed using SPSS-29, with independent sample t-tests assessing outcome significance.

Results: Baseline characteristics were similar in both groups. Post-intervention, IG showed significant improvement compared to UC, which exhibited deterioration. Mean differences (IG vs. UC) were: SPES/SCOPA-Motor—motor evaluation: -8.84 ($p<0.001$), ADL: -3.19 ($p<0.001$), MC: -0.98 ($p=0.116$); TUG: -2.1s ($p=0.048$). NCS revealed improved conduction velocity (right: +4.92m/s, left: +5.45m/s, $p<0.001$) and amplitude (right: +1.97mV, left: +2.43mV, $p<0.001$).

Conclusion: MBI is an effective adjunct therapy for improving motor symptoms in PD. The observed improvements suggest potential neuroprotective effects, possibly mediated through reduced neuroinflammation together with enhanced dopaminergic activity. These findings support further exploration of meditation as a non-pharmacological intervention for mitigating neurodegeneration in PD.

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