

### Editors

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### THE MIND

*Bulletin on Mind-Body Medicine Research* is a quarterly publication by the Mind-Body Medicine Research Council (MBMRC), founded in 2022.



### Editorial

## Mind-Body Medicine – A Journey Beyond the Helplessness Barrier

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doi: <https://doi.org/10.61936/themind/202406041>

When I agreed to write an editorial about Mind-Body Medicine for “The Mind”, I knew it would have to be a personal story, my story. There is plenty of excellent research in the field and there cannot be serious doubt that this holistic approach to health and disease has fundamental benefits for chronically ill patients. So, what could be my contribution to the Bulletin of Mind-Body Research? Possibly the best I have to offer is my story.

While writing these lines, it is mid-May and snowing! I see the snowflakes dancing and the mountain tops are white, however, every once in a while, the sun peeks out of the clouds and reveals an ocean as blue as ever. The view out of my window is stunning – across the Tromsø sound, towards the mountains of Kvaløya, the Whale-Island.

I live in Tromsø, ca. 250 km north of the polar circle, and hold a professorship for Healthcare Research – Alternative Treatment, at the world's northernmost university, UiT, the Arctic University of Norway. Moreover, I am also a chronically ill patient, diagnosed with multiple sclerosis in my mid-thirties. I have a strong walking disability, which more or less confines me to a wheelchair.

Having multiple sclerosis and not being able to walk is not a bed of roses. I know everything that comes with that challenge, with the progressive loss of function, the worry, how fast will it go, and where do I end up? Depression and anxiety were my closest friends and worst enemies. “My” multiple sclerosis was very progredient in the beginning.

I was lucky, I had enormous support, my family, my dear husband, dedicated friends, supportive colleagues, and leaders. Yet still, the disease is real, the handicap also. What made the difference?

At some point, I decided to fight. Not against the disease, that is impossible even though conventional treatment has made progress and has a lot to offer. I decided to fight to get my life back, to get in control, to live a good life, even though I could not walk.

After entering the field of complementary and alternative medicine in Germany in 2006, I was for the first time exposed to a Mind-Body Medicine program. As a psychologist, I was familiar with techniques to overcome depression and anxieties, nonetheless, I found this resource-oriented approach most useful.

However, the greatest personal change came with an assignment from the Norwegian Ministry of Health to develop a rehabilitation program for patients with continuing health complaints after amalgam removal. I decided that this program should be grounded in Mind-Body Medicine, and we developed this program with a most competent group of German and Norwegian researchers and clinicians (von Scheidt et al., 2015). The Principal Investigator for the Mind-Body program (von Scheidt et al., 2015) insisted that everybody involved in this study needed to participate in the program themselves, in order to understand the mechanisms of action and the impact of the approach. How right she was!

The other strength that helped me on my way is my love for nature. To be out there and to feel connected to the powerful, almost unreal beauty that surrounds me is a spiritual experience. Up here in the North, nature is everywhere, you cannot escape its power, for good and bad. Yes, it may snow in May, and you regret shifting to summer tires too early. However, when the sun breaks through and the snowy mountains mirror themselves in the still waters of the deep blue ocean, the sight is breathtaking, the beauty of the view almost painful.

There is room for spirituality in Mind-Body Medicine. When people choose that this is an important element in their life, Mind-Body Medicine can help to foster this perspective to life and make it a powerful tool for living a good life. Yet, what is the active ingredient in Mind-Body Medicine approaches? For me it is the focus on resources, the perspective away from malfunctioning and deficits. Becoming chronically ill and handicapped is very much an experience of helplessness. Nothing

helps, whatever you do, you lose.... function, achievements, activities you loved, perspectives. The feeling of helplessness spreads, from things that are lost forever to things, that might still be possible, but you don't do them anymore. And all of a sudden, there is this wall of "I can't", "it will not work", "have tried, but I failed", "I cannot do this anymore" etc.; the great helplessness barrier. It is high, no way to see behind it, no way to figure out, what could lie beyond it.

Mind-Body Medicine approaches can provide a change of perspective, from "I cannot" to "I can". These methods will not make the disease go away, but they can support patients to find a path over, through, or passing by the helplessness barrier and thus provide them with tools to live a meaningful life, a good life.

As for me, something changed, the disease stopped. I am still more or less bound to a wheelchair. Nonetheless, I have started to ride again. Somehow, "my" disease has given me the greatest gift I could ask for, namely finding my way back to riding. My four-legged friends carry me wherever we want to go.

Words fail me to describe some of the things we have seen together. Watching the midnight sun from a mountain top, touching the sea, and rising again is simply spectacular! I have waded through the low tide with my beloved horse Frår, the "Lightfoot", almost blinded by the sun while the eagles were circling above us. We have seen orcas hunting under the northern lights, listening to the sound of their deep breaths. I have galloped over an untouched field of snow, feeling the endless joy of running wild of my four-legged companion under me. I still cannot walk, but I have grown wings!

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## Research

# Growing up and Waking up - New Perspectives in Mind-Body Medicine Illustrated by the Model of Meditation-Based Lifestyle Modification (MBLM)

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doi: <https://doi.org/10.61936/themind/202406042>

Ken Wilber's concept of "waking up" and "growing up" emphasizes the dual paths of spiritual enlightenment and psychological development (Wilber, 2000). In the context of Mind-Body Medicine, this framework can offer a comprehensive approach to healing, addressing both the spiritual and psychological aspects of health. By incorporating practices that promote both spiritual awareness ("waking up") as well as emotional and cognitive maturity ("growing up"), Mind-Body Medicine can facilitate holistic well-being by enhancing the therapeutic outcomes for individuals.

Related to more holistic mindfulness-based interventions (MBIs), Van Gordon et al. (2020) initiated a profound exploration into their evolution, advocating for the transition towards a second generation that more authentically embodies traditional Buddhist practices. Their discussion critically distinguishes between first-generation MBIs, such as Mindfulness-Based Stress Reduction and Mindfulness-Based Cognitive Therapy, and the emergent second-generation MBIs, which explicitly integrate spiritual components and traditional meditative practices beyond mere moment-to-moment awareness to improve health, productivity, and emotional well-being. These second-generation programs aim to rectify what the authors perceive as dilutions or misinterpretations of mindfulness within first-generation MBIs, proposing a more comprehensive approach that includes ethical mindfulness practices, impermanence, and compassion as central to the therapeutic process. Their rigorous examination underscores a pivotal shift towards interventions that not only address psychological distress but also foster a deeper spiritual well-being, setting a new direction for mindfulness research and practice (Van Gordon and Shonin, 2020).

The Meditation-Based Lifestyle Modification (MBLM) program marks a significant evolution in mind-body interventions, aligning with the inspiration of second-generation MBIs through its deep integration of ethical and spiritual aspects derived from Yoga and Ayurveda [the-mind.org](https://www.themind.org)

philosophy (Bringmann et al., 2021a). Unlike its predecessors, MBLM is intricately designed to address mental and stress-related disorders by weaving together classical Yoga's holistic teachings (which essentially aims to develop a deep meditation practice) with basic Ayurvedic principles to foster physical, mental, and spiritual health. This integration is deeply rooted in the traditional frameworks of both Yoga and Ayurveda, which emphasize balance, ethical living, and spiritual growth as pathways to eudaimonic well-being. Eudaimonic well-being, emphasizing the fulfillment of one's true potential and adherence to deeply held values, mirrors the soul's intrinsic pursuit of purpose and connection, underscoring the soul as the essence of our being that seeks alignment with the universal truths and meaningful existence. Central to MBLM is its foundation on Patanjali's eightfold path of Yoga, a comprehensive approach that moves beyond physical postures to include ethical principles (Yamas and Niyamas), breath control (Pranayama), and meditative techniques (Prathyahara, Dharana, Dhyana, and Samadhi), aiming at the cessation of mental fluctuations and the realization of pure consciousness, one's "Higher Self", or immortal soul (Bryant, 2009). This theoretical underpinning positions MBLM as a complex intervention tailored to facilitate spiritual awareness on the basis of self-regulation and stress response modulation through both top-down (higher faculties of the mind) and bottom-up (neurophysiological) processes (Bringmann et al., 2021a).

Empirical evidence supports MBLM's effectiveness across various populations, including healthy adults, individuals with depression, and those suffering from chronic pain:

- For healthy participants, Matko et al. (2021) utilized a single-case multiple-baseline design to explore the incremental effects of core MBLM's components (ethical living practice, physical Hatha yoga, and spiritual mantra meditation) on well-being and stress. Participants showed a longitudinal increase in well-

being, with the largest increases observed in those implementing ethical living practice. Stress levels tended to decrease, especially in conditions combining treatment conditions with physical Yoga. This research underscores the differential and synergistic benefits of combining meditation with ethical education and physical Yoga, offering valuable insights for tailoring complex MBIs.

- In outpatients with mild to moderate depression, MBLM showed significant improvements in depressive symptoms. A qualitative sub-group analysis highlighted themes of reappraisal, serenity, and mindful living in participants' experiences, indicating enhanced well-being and ethical living awareness. In the 6-month follow-up results, the outcomes for patients who participated in the MBLM program showed significant and sustained improvements in self-rated depression, psychosomatic symptoms, and stress with medium to large effect sizes compared to other treatment groups. Notably, after 8 weeks, the MBLM group exhibited a 49% reduction in depression levels, compared to a 13% reduction in the Treatment as Usual (TAU) group. This significant reduction persisted at the 6-month follow-up, with the MBLM group maintaining a 47% reduction in depression levels versus a 19% reduction in the TAU group. These results underscore the clinical relevance and sustained benefits of MBLM in managing depression, highlighting its superiority not only over conventional body-oriented Yoga and meditative movements but also over standard multimodal treatments for depression (Bringmann et al., 2021b; Bringmann et al., 2022).
- A study on MBLM for chronic pain showed varied results across measures of pain intensity, self-efficacy, and quality of life. Participants, mostly suffering from chronic back pain, fibromyalgia, or chronic migraines, demonstrated high adherence to the program, with notable daily engagement in ethical living practices, Yoga and meditation. The study showed a small but significant improvement over time and small to very large reductions in their

strongest pain levels. Pain self-efficacy saw a significant medium-sized improvement, and overall well-being improved to a moderate extent with a significant medium effect size (Matko et al., 2023).

MBLM incorporates Yoga's ethical principles, which align with positive psychology's focus on fostering virtues and strengths. By emphasizing values like non-violence, truthfulness, contentment, and self-discipline, MBLM leverages these values to enhance well-being and resilience, connecting the practice of yoga with the goals of positive psychology interventions to improve life satisfaction and happiness. Its foundation in Patanjali's Yoga Sutras offers a pathway to self-realization and transcendent states through systematically preparing for and refining the practice of meditation, leading to the stilling of the mind. This process is integral to transpersonal psychology, which explores the spiritual aspects of human experience, suggesting that MBLM can facilitate profound psychological growth and an expanded sense of identity beyond the individual self. Ken Wilber's framework of "waking up" and "growing up" is mirrored in MBLM through the integration of Yoga's ethical values and meditation practices. The program supports "growing up" by fostering personal virtues and "waking up" through meditative practices that encourage spiritual awareness and enlightenment, thus contributing to holistic human development.

Yoga and Ayurveda offer profound insights into the nature of consciousness and the soul, blending theoretical knowledge with practical application. These ancient systems present a cohesive framework for understanding the interplay between body, mind, and the eternal facets of the soul, advocating for practices that promote health, balance, and spiritual growth. Their emphasis on holistic well-being and the pursuit of higher states of consciousness makes them foundational to the philosophy underlying MBLM and future second-generation MBIs with the scope of human flourishing.

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## Viral Targeting of Mitochondria May Alter Cognition and Enhance Viral Transmission

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doi: <https://doi.org/10.61936/themind/202406043>

While several recent studies highlighted the acute and chronic changes resulting from infection with severe acute respiratory syndrome-coronavirus 2 (SARS-CoV-2) (Wang, Kream and Stefano, 2020; Chen et al., 2020; Pezzini and Padovani, 2020), the long-term effects of COVID-19 on the CNS remain largely unknown (Wang, Kream and Stefano, 2020). The results of several recent studies revealed that SARS-CoV-2 infection can lead to altered cognitive function and neuropsychiatric and developmental disorders, including depression and autism, respectively (Lau et al., 2004; Tsai et al., 2004; Correa-Palacio et al., 2020; Chandra et al., 2020; Mawhinney et al., 2020; Beach et al., 2020; Epstein et al., 2020; Chen et al., 2020; Zhang and Ma, 2020; Ptáček et al., 2020). The psychological symptoms, behavioral changes, cognitive impairment, confusion, and poor concentration resulting from SARS-CoV-2 infection are components of a characteristic “brain fog” (Croall et al., 2020).

The degree of initial lung damage resulting from an acute SARS-CoV-2 infection has an impact on the long-term effects of infection and may lead to both acute and chronic changes in the central nervous system (CNS) (Calabrese et al., 2020; Tian et al., 2020; Xu et al., 2020). Findings from recent modeling studies suggest that both genomic and subgenomic RNA SARS-CoV-2 transcripts can hijack the host cell by targeting the

nucleolus and the mitochondrial matrix (Wu et al., 2020). Specifically, the SARS-CoV-2 pathogen may integrate components of its genome into the mitochondrial matrix of the host cell, thereby impairing mitochondrial energy metabolism by reducing the availability and utilization of oxygen (Wu et al., 2020; Shenoy, 2020; Singh et al., 2020). This viral-mitochondrial interaction results in enhanced energy use, a reduction in available mitochondrial energy, and reduced immune responses by the host cell, thereby promoting virus replication and survival (Shenoy, 2020; Singh et al., 2020; Stefano, Esch and Kream, 2020; Ptáček et al., 2020). These pathological effects may lead to some of the long-term cognitive, psychiatric, and neurodegenerative sequelae of this infection (Ptáček et al., 2020).

The mechanisms used by SARS-CoV-2 to alter host cell mitochondrial function and energy metabolism may lead to the development of impaired cognitive function. Cellular mitochondria evolved from an alphaproteobacterial-like bacterial ancestor and have retained the ability to move between cells and toward hypoxic microenvironments and to exist extracellularly, for example, in the cerebrospinal fluid (Stefano, Esch and Kream, 2020; Stefano, Esch and Kream, 2019; Hayakawa et al., 2018; Nakamura, Park and Hayakawa, 2020). In our previous studies, it was suggested that

mitochondrial targeting may be an initial step in the cellular stress response to infection and similar perturbations given their unique oxygen-sensitive functions that are critical factors initiating protective proinflammatory reactions (Esch et al., 2020).

Physiological stress resulting from inflammation can increase one's susceptibility to viral infection; furthermore, several neurological disorders have been linked to chronic inflammation. (Esch and Stefano, 2002; Esch et al., 2002). Certain viruses, for example, human immunodeficiency virus can enter the CNS by hijacking immune cells to facilitate penetration through the blood-brain barrier (BBB) (Stefano et al., 2021; Stefano et al., 2022). Thus, normal cell trafficking through the BBB can introduce pathogens into the CNS, which occurs at higher frequency in activated immune cells, further implying the susceptibility of the BBB and questioning its barrier nature. These virus pathogens can utilize complementary conformational shape matching to target mitochondria and perturb pathways leading to energy production, thereby altering cognition, because of its constant need for high levels of energy to function (Stefano et al., 2021; Stefano et al., 2022). Of note, mitochondria may represent the ideal target for these viruses because of their bacterial origin; this permits the viruses to replicate their evolutionarily ancient interactions (Stefano and Kream, 2022; Stefano et al., 2022; Büttiker et al., 2023; Stefano et al., 2023). Overall, virus-mediated impairment of mitochondrial function and cognition may lead to alterations in both cognitive and noncognitive protective behaviors that lead to increased infectivity and transmission (Stefano et al., 2021).

SARS-CoV-2 infection may also lead to mitochondrial synchronization in multiple cells (Esch et al., 2002; Tobin, Laghi and Jubran, 2020; Huang et al., 2018). Furthermore, if energy metabolism is compromised, the resulting immune dysfunction will increase the spread of the virus both within and ultimately between individuals. Because neural tissue requires high oxygen levels to function optimally, mitochondrial dysfunction resulting from SARS-CoV-2 infection may lead to one or more COVID-19-associated neurological sequelae (Esch and Stefano, 2002; Esch et al., 2002). Therefore,

the development of "brain fog" as an outcome of SARS-CoV-2 infection may be the result of a conserved strategic mechanism used by the virus pathogen to promote its transmission and long-term survival.

In summary, SARS-CoV-2 infection has been associated with altered brain function which may lead to new onset or worsening of preexisting neuropsychiatric symptoms. Recent studies have considered both the direct and indirect impact of SARS-CoV-2 infection on the CNS. Among these findings, prolonged COVID-19 (also known as "long COVID") may lead to serious long-term mental and cognitive changes, including the condition known as "brain fog". Neuronal cell energy metabolism may become compromised upon integration of the viral genome, resulting in mitochondrial dysfunction and distinct regions of cerebral hypoxia. As discussed, hypoxic conditions in the CNS may facilitate virus reproduction. Cerebral tissues require an immediate and constant supply of oxygen to maintain physiologic function. Thus, when confronted with hypoxic conditions, neurons with the highest oxygen demand become dysfunctional. The resulting cognitive impairment serves to benefit the viral pathogen, as infected individuals exhibit behaviors that limit protection against infection. The capacity to target cellular mitochondria may also provide an evolutionary advantage for SARS-CoV-2. A high viral load detected in COVID-19 patients with CNS-related symptoms suggests that neurons with high-level energy needs have been compromised. Therefore, it is proposed that the selective targeting of neuronal mitochondria during SARS-CoV-2 infection affects cognitive processes and results in "brain fog" and behavioral changes that favor viral propagation. Cognitive changes associated with COVID-19 are clearly of increasing significance with respect to patient diagnosis, prognosis, and the need for long-term care. Furthermore, this cloaked abeyant nature of certain pathogens and/or their metabolites may represent initiating neuropsychiatric and/or neurodegenerative phenomena that currently eludes detection. Taken together, there is an increasing need for mental health support for issues related to acute and chronic pathogen actions, e.g., COVID-19 (Huang et al., 2018; von Arnim et al., 2019).

## Acknowledgments

The Department of Psychiatry, First Faculty of Medicine, Charles University in Prague, Czech Republic is noted for hosting this project.

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## Opinion

# Mind-Body Medicine: A Funder's Perspective

by Rainer Lüdtké<sup>1</sup>

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doi: <https://doi.org/10.61936/themind/202406044>

### THERE'S PLENTY OF MONEY FOR RESEARCH!

The development of a single new cancer drug costs at least 800 million euros, usually much more (Schlander et al., 2021). The world's 10 largest pharmaceutical companies alone have an annual research budget of over 140 billion euros (Statista, 2024). In 2022, the German Research Organization (DFG) has awarded new grants totalling almost 500 million euros in the field of medicine (DFG, 2024). The largest German foundation, the Robert Bosch Foundation, spends around 15 million euros a year on "medical research funding" (Robert Bosch Stiftung, 2023); money that was generated from total assets of over 5 billion euros. So why should a typical, medium-sized foundation in Germany, which does not have 5 billion, but "only" 5 million euros in foundation capital and can therefore only realise funding projects of a maximum of 100 thousand euros per year, invest in science and research for medical purposes at all? Isn't every amount a drop in the ocean that evaporates invisibly and ineffectively?

### RESEARCH FUNDING BY FOUNDATIONS: IRRELEVANT, USELESS, SUPERFLUOUS?

The answer is: "No". It would be "yes" if the foundation acted like a major research organisation, i.e. if it addressed topics focusing on university and private research. It would be "no" if the foundation did not focus on the (preclinical or clinical) development of a new drug for one of the major widespread diseases, but instead focussed on the many areas of medicine that lie outside the mainstream and lead a niche existence. Such niches

can be, for example, rare diseases in children, or therapeutic procedures with an unexplained - possibly even dubious - mechanism of action (think of acupuncture, for example), or therapist-centred and non-patentable procedures that offer hardly any opportunity for commercial use of a product.

### THE EDEN FOUNDATION FOR THE PROMOTION OF NATURAL LIVING AND HEALTH CARE

The EDEN Foundation is a foundation of the type described above. With assets totalling 7.7 million euros, it is one of the medium-sized foundations in Germany. It provides its funding - less than 100 thousand euros per year - solely from interest and dividend income generated from the investment of the foundation's assets. Since its establishment in 1962, it has been tasked with promoting science and research in three areas: Organic farming, wholefood nutrition and holistic medicine. These three subject areas described 60 years ago genuine research niches that were rarely addressed by research sponsors - and certainly not by commercial companies.

### WHY FUND MIND-BODY MEDICINE?

Even if the protagonists of Mind-Body Medicine don't like to hear it and perceive it differently from their perspective: Mind-Body Medicine is still a niche medicine. Even though the number of yoga courses on offer has exploded in the last 20 years and the density of integrative medicine clinics in Germany, Europe and the US is steadily increasing: In 2024, Mind-Body procedures are still perceived by most medical

professionals and patients as part of lifestyle rather than preventive or even therapeutic medicine.

And this is precisely the reason why foundations such as the EDEN Foundation are taking on this medicine and funding research projects: The niche ensures that the research funds do not go to waste, but are used sensibly, visibly and hopefully effectively and efficiently. For the benefit of patients.

Of course, it is not only the visibility of the funds that plays a role in a foundation's decision as to which projects and areas it invests its funding in, but also the potential, originality and innovative strength of these areas. The EDEN Foundation is committed to a holistic approach by virtue of its statutes. However, it is also convinced that something groundbreaking has emerged or can emerge from the linking of body, mind and behaviour. The concept of self-efficacy, both in the prevention and treatment of illnesses, is not new, but it is innovative and full of potential. The aim is to leverage this potential through research and optimise the effects.

#### WHERE EXACTLY SHOULD WE FUND?

How exactly the potential is best realised certainly depends in many respects on the personal attitude of the promoter, his or her own experiences and preferences. I myself have been involved for many years in patient-centred research into the clinical effectiveness of Mind-Body interventions (i.e. does fasting lead to improved sleep and better health (Michalsen et al., 2003)? Is Iyengar Yoga effective for neck pain (Michalsen et al., 2012)?...). Nowadays I would be less interested in whether certain interventions work, but rather why they do: What exactly is actually happening

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(immunologically, neurologically, morphologically...) to our bodies when we do relaxation exercises? Which are specific stimuli for certain diseases, which stimulate in a rather non-specific way? Why are there placebo effects and how can they be used specifically? How and why do mind-body techniques fit into multimodal therapy approaches? I know, much work has already been done in these fields. However, I believe we can and should go into much further detail here.

We know that yoga exercises can relieve back pain (Anheyer et al., 2022), as can Mindfulness-Based Stress Reduction (MBSR) (Anheyer et al., 2017). However, a landmark study by Cherkin et al. (2016) has shown that MBSR and cognitive behavioural therapies are roughly equally effective in relieving chronic back pain. That must make a researcher wonder. Does it really matter which method we use to tackle health problems on the Mind-Body axis, as long as we do it? Are the individual specifics of the procedures indeed irrelevant? I am convinced that a clarification of the details, a decomposition of the procedures could provide insights.

*As a Board member of the EDEN Foundation, I must and want to adopt a different funding perspective. As already mentioned, the foundation not only has a funding focus on holistic medicine, but also on nutrition. In the context of Mind-Body Medicine, it would therefore be expedient for the EDEN Foundation to promote research at this interface in order to understand the interactions of nutrition, nutritional behaviour, and attitudes with psychological, mental and physical phenomena more precisely; aiming at implementing them in self-efficacious interventions.*

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## Student's corner

### Quo vadis students' health?

## Introducing a Mind-Body Medicine (MBM) Health Promotion-Intervention for Self-care, Sustainable Studying and Resilience in Academic Learning Life

by Miriam Thye<sup>1,2</sup> and Charlotte Knoblauch<sup>1</sup>

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doi: <https://doi.org/10.61936/themind/202406045>

Academic learning life is challenging in a number of ways; current research on student health reveals enormously negative results regarding mental and physical health (Grützmaker et al., 2018). University students seem to be a particularly vulnerable group when it comes to psychological issues, such as depression, loneliness, anxiety, and stress (Hernández-Torrano et al, 2020; Bucher, 2023). The estimated prevalence of burnout among students rates as high as 56,9% (Rosales-Ricardo et al., 2021). Burnout and general reduced health lead to declined academic performance (Niemeyer, 2020) and declined academic achievement (Madigan et al., 2021). Moreover, especially medical students' burnout and reduced well-being were shown to be related to reduced empathy (Roling et al., 2020). Mental and physical well-being are major issues among physicians and were shown to have an impact on quality of patient care (Werdecker et al., 2021). Educating students in the best possible way, as well as optimal preparation for later

job performance, should be seen as universities' social and moral obligations toward society (Kromydas, 2017). Especially in the field of educating future health-care specialists, fostering a culture that leads to meaningful, efficient and healthy studying should be a key component (Thye et al., 2021).

The conclusion that institutions of higher education should engage in some sort of sustainable healthcare for their students is not far-fetched. To understand the underlying mechanisms of health-modulation, we conducted a detailed analysis of how and why students' health seems to be particularly impaired by academic life challenges. Taking into account the first-hand experiences, assembled by 12 semi-structured guided interviews, with students about their health status, we see that students feel negatively influenced by their academic schedule and its influence on their health behavior. Furthermore, students experience an impairment on their well-being due to lack of time, stress, negative exam

results, and loneliness. This explorative study provides a differentiated understanding of health status, identifies previously unknown influencing factors, and uncovers individual perceptions made by students.

Following these implications, we introduced a Mind-Body Medicine (MBM) intervention (BERN-Model; Esch and Stefano, 2022) for students at Witten/Herdecke University. By addressing behavioral change, exercise, relaxation, and nutrition, we try to foster self-care, health

promotion, and resilience in academic learning life. Preliminary qualitative analysis of 17 participants' evaluations and reflections on personal development reveal profound satisfaction among students with the eight-week intervention. Especially the dimension of relaxation, knowledge about the interaction of mind and body seem to improve students' well-being. A sense of interconnectedness developed throughout the course in peer-to-peer chats seems to be a helpful remedy against loneliness.

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## Self-compassion Focused Writing

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Self-compassion based interventions, including self-compassion focused writing, have shown to have beneficial effects on psychological and physical variables (Aydoğdu and Dirik, 2022; Kirby et al., 2017; Swee et al., 2023; Wakelin et al., 2022).

The following exercise describes one way to help you practice self-compassion today and in future situations.

Find a quiet place where you will not be disturbed. Prepare to take a pen and a paper and follow through the next steps.

Close your eyes, if you like. Now, think of a recent situation that made you feel bad but is not too intense. To make sure you can handle arising sensations, choose something that causes only mild undesired feelings. You might have felt not good enough, anxious, depressed, ashamed or distressed.

Take some time to reflect on the situation: What happened? How exactly did you feel and why? Where in the body can you sense it? Which thoughts are linked to it and are these feelings familiar to you from other situations?

The exercise will now be to write a letter to yourself, changing your judgemental view on the situation by directing expressions of understanding, acceptance and compassion to yourself. The following guidelines will help you doing so:

Imagine a good friend of yours has experienced the very same situation. How would you comfort him/her? What would you say and what is your tone of voice?

Think of yourself sitting amidst a group of people in a benevolent and trusting atmosphere. Every one of them contributes the description of similar circumstances, feelings or reactions as you have experienced. Remind yourself, that everybody has his or her own issues to struggle with.

Imagine your future self, going through a similar situation. How could you be more self-compassionate? Can you see what the experienced feelings are offering you to understand about yourself?

Close the letter with a compliment to yourself.

*Put your letter aside and re-read it whenever similar bad feelings arise in the future.*

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## Announcements

### 1st Scientific Conference on Mind-Body Medicine Research organized by the MBMRC

Join us on November 4th and 5th, 2024, online or in Witten, Germany, to explore the scientific field of Mind-Body Medicine! Delve with international experts from diverse fields into molecular mechanisms, neurobiological correlates, and integrative approaches to holistic health. For more information please visit our website [here](#). **Abstract submission** for research presentation and practical MBM sessions is open until June 24<sup>th</sup>. Click [here](#).”

### Job opening

#### **Efficacy of a mind-body-medicine-based health promotion course for patients with multiple sclerosis: A mixed-methods study with a randomized controlled trial**

The Institute for Integrative Health Care and Health Promotion (IGVF) has received funding to conduct a mixed-methods study investigating if and to what degree participation in a mind-body-medicine-based health promotion course can improve health-related outcomes among patients with multiple sclerosis. For the upcoming qualitative investigation of stakeholders’ perspectives and a randomized controlled trial, we are currently hiring a German-speaking researcher. To submit an application, please [click here](#).

### New MBMRC members

We heartily welcome *Pascal Büttiker*, MSc, as a new member of the MBMRC. Pascal is a researcher and PhD candidate in the field of medical Psychology at the Department of Psychiatry, First Faculty of Medicine, Charles University and General University Hospital in Prague. He is a psychologist formally recognized by the Swiss confederation with an ongoing MAS in cognitive behavioral therapy and behavioral medicine. With a postgraduate degree in cognitive science and philosophy of mind, he specializes in perception generation with a distinct focus on the neurocognitive effects of virus infections and the underlying biological mechanisms. As a clinical practitioner at a psychiatric hospital, Pascal is eager to find ways to integrate novel scientific findings in the treatment of long COVID patients with neuropsychiatric symptoms.

## The Mind-Body Medicine Research Council (MBMRC)

**At the present time, the council consists of the following members:**

Tobias Esch, M.D. (Co-Chair)

George B. Stefano, Ph.D. (Co-Chair)

Maren M. Michaelsen, Dr. rer. oec. Dr. rer. medic. (Project Lead)

Radek Ptáček, Ph.D., MBA

Pascal Büttiker, MSc

### How to become a member of MBMRC

As the MBMRC has been founded in 2022, and due to its dedication to rigorous contributions on the basic research foundations of Mind-Body Medicine, the number of members is yet small. In the future, the council aims to invite outstanding researchers in the field to become MBMRC members. Membership implies no fee.

### Recent Publications of MBMRC Members

Anders, M., Šustr, M., Bůžek, M., Vňuková, M. S., & Ptáček, R. (2024). NATURALISTICKÁ OBSERVAČNÍ STUDIE DŮVODŮ A ZPŮSOBU ZMĚNY SKLADBY PSYCHOFARMAKOLOGICKÉ LÉČBY DEPRESIVNÍ PORUCHY V PSYCHIATRICKÝCH AMBULANCÍCH. *Ceská a Slovenská Psychiatrie*, 120(1).

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