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Articles testing the applied science and implementation of mindfulness-based interventions

Ahmad, F., El Morr, C., Ritvo, P., …& MVC Team. (2023). **Examining the impact of web-based mindfulness on undergraduate student's quality of life: A randomized controlled trial.** *BMC Digital Health*. [link]

Almaguer-Botero, A. P., Miller, E. L., Chen, R. K., & Carlson, R. (2023). **Effects of a Mindfulness Intervention to Improve Teachers' Well-being.** *Trends in Psychology*. [link]

Andorfer, A., Kraler, S., Kaufmann, P., …& Unterrainer, H.-F. (2023). **Psychophysiological stress response after a 6-week Mindful Self-Compassion training in psychiatric rehabilitation inpatients: A randomized post-test only study.** *Frontiers in Psychiatry*. [link]

Bailey, N. W., Comte, W., Chambers, R., …& Hassed, C. (2023). **Participation in Online Mindfulness was Associated with Improved Self-Compassion and Prosocial Attitudes.** *Mindfulness*. [link]

Gawande, R., Smith, L., Comeau, A., …& Schuman-Olivier, Z. (2023). **Impact of warm mindfulness on emotion regulation: A randomized controlled effectiveness trial.** *Health Psychology*. [link]

Golec de Zavala, A., Keenan, O., Ziegler, M., …& Mazurkiewicz, M. (2023). **App-based mindfulness training supported eudaimonic wellbeing during the COVID19 pandemic.** *Applied Psychology: Health and Well-Being*. [link]

Grazzi, L., D'Amico, D., Guastafierro, E., …& Raggi, A. (2023). **Efficacy of mindfulness added to treatment as usual in patients with chronic migraine and medication overuse headache: A phase-III single-blind randomized-controlled trial (the MIND-CM study).** *The Journal of Headache and Pain*. [link]

Guarnaccia, J. B., Njike, V. Y., Dutton, A., ….& Sinha, R. (2023). **A pilot, randomized, placebo-controlled study of mindfulness meditation in treating insomnia in multiple sclerosis.** *BMC Neurology*. [link]

Hojjati Najafabadi, S., Vakilian, K., Ghaemmaghami, M., …& Beigi, M. (2023). **Investigating the effect of mindfulness counselling on sexual functioning of women with premenstrual syndrome.** *Sexual & Reproductive Healthcare*. [link]

Honsky, J., Edguer, M. N., Click, E. R., …& Berg, K. A. (2023). **Mindfulness matters in the classroom: A pilot study of a university-wide classroom-based brief mindfulness program.** *Journal of American College Health*. [link]

Innab, A., Al-khunaizi, A., Al-otaibi, A., & Moafa, H. (2023). **Effects of mindfulness-based childbirth education on prenatal anxiety: A quasi-experimental study.** *Acta Psychologica*. [link]

Kim, S., & Hunter, S. (2023). **Can Brief Online Mindfulness Programs Mitigate Healthcare Workers' Burnout amid the COVID-19 Pandemic?** *Mindfulness*. [link]

Krieger, J. F., Kristensen, E., Marquardsen, M., …& Giraldi, A. (2023). **Mindfulness in sex therapy and intimate relationships: A feasibility and randomized controlled pilot study in a cross-diagnostic group.** *Sexual Medicine*. [link]

Lewis, N. V., Gregory, A., Feder, G. S., …& Malpass, A. (2023). **Trauma-specific mindfulness-based cognitive therapy for women with post-traumatic stress disorder and a history of domestic abuse: Intervention refinement and a randomised feasibility trial (coMforT study).** *Pilot and Feasibility Studies*. [link]

Li, H., Chen, H., Ye, Z., …& Liu, M. (2023). **Effect of the Online Mindfulness-Based Stress Reduction on Anxiety and Depression Status of COVID-19 Patients Treated in Fangcang Hospitals: A Randomized Controlled Trial.**

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Liu, P., Liu, N., Jia, G., …& Qian, Q. (2023). **Effects of Mindful Parenting Program on the Executive Function and Resting State Brain Functional Connectivity for Parents of Children with Attention Deficit Hyperactivity Disorder: A Randomized Controlled Trial.** *Mindfulness*. [link]

Obaya, H. E., Abdeen, H. A., Salem, A. A., …& Atef, H. (2023). **Effect of aerobic exercise, slow deep breathing and mindfulness meditation on cortisol and glucose levels in women with type 2 diabetes mellitus: A randomized controlled trial.** *Frontiers in Physiology*. [link]

Oner Cengiz, H., Bayir, B., Sayar, S., & Demirtas, M. (2023). **Effect of mindfulness-based therapy on spiritual well-being in breast cancer patients: A randomized controlled study.** *Supportive Care in Cancer*. [link]

Velissaris, S., Davis, M.-C., Fisher, F., …& Stout, J. C. (2023). **A pilot evaluation of an 8-week mindfulness-based stress reduction program for people with pre-symptomatic Huntington's disease.** *Journal of Community Genetics*. [link]

Viverette, A., Hawley-Bernardez, A., & Evans, R. (2023). **Social Work Students use of Adapted Mindfulness-Based Stress Reduction as a Stress Management Strategy.** *Journal of Social Work Education and Practice*. [link]

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Deng, X., Yang, M., Chen, X., & Zhan, Y. (2023). **The role of mindfulness on theta inter-brain synchrony during cooperation feedback processing: An EEG-based hyperscanning study.** *International Journal of Clinical and Health Psychology*. [link]

Dimidjian, S., Gallop, R., Levy, J., …& Segal, Z. V. (2023). **Mediators of change in online mindfulness-based cognitive therapy: A secondary analysis of a randomized trial of mindful mood balance.** *Journal of Consulting and Clinical Psychology*. [link]

Doyle Fosco, S. L., Schussler, D. L., & Jennings, P. A. (2023). **Acceptability of a Mindfulness-Based Professional Development Program to Support Educational Leader Well-Being.** *Mindfulness*. [link]

He, M., Li, Y., Ju, R., …& Liu, X. (2023). **The role of experiential avoidance in the early stages of an online mindfulness-based intervention: Two mediation studies.** *Psychotherapy Research*. [link]

Küchler, A.-M., Kählke, F., Bantleon, L., …& Baumeister, H. (2023). **Moderators and mediators of change of an internet-based mindfulness intervention for college students: Secondary analysis from a randomized controlled trial.** *Frontiers in Digital Health*. [link]

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Melis, M., Schroyen, G., Blommaert, J., …& Deprez, S. (2023). **The Impact of Mindfulness on Functional Brain Connectivity and Peripheral Inflammation in Breast Cancer Survivors with Cognitive Complaints.** *Cancers*. [link]

Nagaoka, M., Koreki, A., Kosugi, T., …& Sado, M. (2023). **Economic Evaluation Alongside a Randomized Controlled Trial of Mindfulness-Based Cognitive Therapy in Healthy Adults.** *Psychology Research and Behavior Management*. [link]

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Roca, P., Vazquez, C., Diez, G., & McNally, R. J. (2023). **How do mindfulness and compassion programs improve mental health and well-being? The role of attentional processing of emotional information.** *Journal of Behavior Therapy and Experimental Psychiatry*. [link]

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Hanley, A. W., Walker, D., Zingg, R. W., …& Hansen, P. A. (2023). **The Mindful Warm-Up: Proof of Concept for a Brief Embedded Intervention.** *Mindfulness*. [link]

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Lau, W. K., Sanchez Vidaña, D. I., Tai, A. P.-L., …& Lau, B. W.-M. (2023). **The Differential Effect of Oxytocin on Mindfulness in People with Different Resilience Level.** *Mindfulness*. [link]

Merrigan, J. J., Quatman-Yates, C., Caputo, J., …& Klatt, M. (2023). **Assessment of Virtual Mindfulness-Based Training for Health Care Professionals: Improved Self-Reported Respiration Rates, Perceived Stress, and Resilience.** *Global Advances in Integrative Medicine and Health*. [link]

Navarrete, J., Fontana-McNally, M., Colomer-Carbonell, A., …& Luciano, J. V. (2023). **The Toronto Mindfulness Scale and the State Mindfulness Scale: Psychometric properties of the Spanish versions.** *Frontiers in Psychology*. [link]

Nielsen, C., Katz, S., Parker, M., …& Jaqua, B. (2023). **A student-driven mindfulness curriculum for first-year osteopathic medical students: A pilot study.** *Journal of Osteopathic Medicine*. [link]

Osman, I., Mncwabe, S., & Singaram, V. S. (2023). **Twelve tips for creating a multicultural mindfulness-based intervention in diverse healthcare settings.** *Medical Teacher*. [link]

Rieger, K. L., Hack, T. F., Duff, M. A., …& West, C. H. (2023). **Integrating mindfulness and the expressive arts for meaning making in cancer care: A grounded theory of the processes, facilitators, and challenges.** *Supportive Care in Cancer*. [link]

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Galante, J., Friedrich, C., Dalgleish, T., …& White, I. R. (2023). **Systematic review and individual participant data meta-analysis of RCTs assessing mindfulness-based programs for mental health promotion.** *Nature Mental Health*. [link]

Giannou, K., & Mantzios, M. (2023). **Meditative and non-meditative mindfulness-based interventions for mind and body.** *BMC Complementary Medicine and Therapies*. [link]

Goerlitz, D., Hong, A., Bailey, V., & Wachholtz, A. (2023). **Implications for a mindfulness-enhanced positive affect induction: A brief commentary toward acute pain management.** *Journal of Health Psychology*. [link]

Katyal, S., Lumma, A.-L., Goldin, P. R., & Roy, S. (2023). **The varieties of contemplative experiences and practices.** *Frontiers in Psychology*. [link]

Lannon-Boran, C., Hannigan, C., Power, J. M., …& Kelly, M. (2023). **The effect of mindfulness-based intervention on cognitively unimpaired older adults' cognitive function and sleep quality: A systematic review and meta-analysis.** *Aging & Mental Health*. [link]

Levin, J. (2023). **Being in the Present Moment: Toward an Epidemiology of Mindfulness.** *Mindfulness*. [link]

Parisi, A., Hudak, J., & Garland, E. L. (2023). **The Effects of Mindfulness-Based Intervention on Emotion-Related Impulsivity in Addictive Disorders.** *Current Addiction Reports*. [link]

Schussler, D. L., Davis, J., Doyle Fosco, S. L., & Kohler, K. (2023). **Examining the ethics of school-based mindfulness programs.** *Journal of Moral Education*. [link]

Stadnyk, A., Casimiro, H. J., & Reis-Pina, P. (2023). **Mindfulness on Symptom Control and Quality of Life in Patients in Palliative Care: A Systematic Review.** *American Journal of Hospice and Palliative Medicine*. [link]

Sturgeon, M. (2023). **The impact of mindfulness interventions for staff on the care, treatment, and experiences of people with intellectual disabilities: A systematic review.** *Journal of Applied Research in Intellectual Disabilities*. [link]

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Massachusetts General Hospital (T. Pham, PI). **MBCT for chronic pain-depression comorbidity among older Blacks in the community**. NIH/NCCIH project #1K23AT012363-01. [link]

University of Wisconsin-Madison (M. Hirshberg, PI). **Smartphone-based meditation training to reduce adolescent depression**. NIH/NIMH project # 1K01MH130752-01. [link]

University of Michigan (C. Quinn, PI). **Exploring PTSD symptoms, barriers, and facilitators to MBSR for justice involved Black female adolescents and parents**. NIH/NIMHHD project #1R21MD016940-01. [link]

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Highlights

A summary of select studies from the issue, providing a snapshot of some of the latest research

About a third of chronic migraine sufferers overuse their prescribed pain medications. Medication overuse creates an additional problem because the medication effects wear off over the course of a day, triggering medication-withdrawal headaches. Standard treatment involves a gradual reduction in medication followed by the prescription of prophylactic medication and patient education. There have been some uncontrolled pilot studies suggested that mindfulness training may also be helpful for migraine sufferers.

Grazzi et al. [*Journal of Headache and Pain*] conducted a phase-III randomized, controlled trial to test whether adding mindfulness training to treatment-as-usual (TAU) could improve headache frequency, medication overuse, and quality of life in chronic migraine sufferers.

The researchers randomly assigned 177 patients at an Italian specialty headache treatment center (average age = 48 years; 89% female) who met two criteria: 1) experienced at least 15 days of migraine and medication-withdrawal headaches per month, and 2) were overusing their medication. These patients were assigned to one of two groups: TAU or TAU plus mindfulness training.

All patients went through an intensive 5-8 day titrated medication withdrawal protocol as either inpatients or day patients. After discharge, they were provided with individually-tailored prophylactic medication regimes and received education on medication use, diet, exercise, sleep hygiene, and related health issues.

Patients in the TAU plus mindfulness group also participated in six weekly 90-minute group mindfulness training sessions. Each session included mindfulness meditation practice (ranging in length from 5 minutes in the first sessions to 25 minutes by the fifth and sixth sessions). Additionally, participants were asked to engage in 3-10 minutes of home meditation practice during weeks 3 to 6. Patients were assessed at baseline and 3, 6, and 12 months using measures of headache frequency, disability, quality of life, and medication use.

By 12 months, a significantly higher proportion of patients in the TAU plus mindfulness group (78%) achieved a ≥50% reduction in headache frequency compared to the TAU group (48%). The TAU plus mindfulness group showed significantly more improvement on measures of migraine-related quality of life and disability than the control group. Further, the mindfulness group showed significantly greater reductions in pain medication use and lost productivity than the control group.

Total migraine-related healthcare costs were $938 lower in the TAU plus mindfulness group as compared to controls at 12 month follow-up.

The study demonstrates that mindfulness training provides additional benefits beyond treatment-as-usual for migraine sufferers in terms of headache frequency, disability, lost productivity, medication usage, and associated healthcare costs.

The study focused on a specific patient population of severe migraineurs who were treated in an intensive headache specialty center. As such, the findings may not apply to other populations with different migraine severities or treatment settings. Patients in the mindfulness group received more attention and may have received more didactic information than TAU patients so all improvement may not be attributed to mindfulness practice.

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Stress can affect people with Type 2 Diabetes by raising stress-associated cortisol levels that stimulate greater production of blood sugar (glucose). Aerobic exercise can improve health in persons with diabetes by improving insulin sensitivity, lowering glycated hemoglobin (HbA1c) levels, and promoting cardiovascular fitness. Intentional slow breathing and mindfulness meditation may offer additional benefit to persons with diabetes by reducing stress-related cortisol levels that show an association with glucose levels.

Obaya et al. [*Frontiers of Physiology*] conducted a study to compare the effects of aerobics exercise alone versus aerobics exercise combined with intentional slow breathing and mindfulness meditation on cortisol and glucose levels in women with Type 2 Diabetes.

The researchers randomly assigned 58 Middle-Eastern women (average age = 46 years) to either an aerobics training group (AT) or an aerobics training group that also included slow, deep breathing and mindfulness meditation (AT+DMM). All participants met the following criteria: 1) diagnosed with Type 2 Diabetes, 2) experiencing moderate-to-high stress levels, and 3) engaging in low levels of physical activity. Both groups met for three sessions per week for six weeks with sessions lasting 40 minutes for the AT group and 60 minutes for the AT+DMM group.

Aerobics training involved using a treadmill at an intensity of 60-75% of each participant's maximum heart rate. Following aerobics training, the AT+DMM group added 10 minutes of slow and deep abdominal breathing, followed by 10 minutes of mindfulness meditation.

During mindfulness practice, participants sat upright while attending to their breath and listening to relaxing music. Blood draws were collected at pre- and post-intervention at 8:00AM to quantify serum cortisol and fasting blood glucose.

The results revealed that both study groups significantly reduced their blood serum cortisol and fasting blood glucose after the intervention. The AT+DMM group had significantly larger decreases in blood serum cortisol (d=0.69) and fasting blood glucose (d=0.94) than the AT group, achieving a 30% decrease in serum cortisol and a 15% reduction in fasting blood glucose compared to baseline levels.

The study shows that intentional slow breathing and mindfulness meditation adds to the benefits of aerobic exercise in reducing cortisol and glucose levels in a sample of stressed women with Type 2 Diabetes. These findings suggests that slow breathing and breath-focused meditation may be a useful adjunctive treatment in managing high blood sugar when combined with exercise for people experiencing heightened levels of stress.

The study is limited by its not exploring the differential effects of slow breathing and meditation and by the brief duration of the intervention which prevented it from yielding interpretable change in HbA1c given that HbA1c provides a measure of the average blood sugar level over the preceding three months.