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Aydin, Ş., & Budak, F. K. (2023). **Effect of Mindfulness-Based Stress Reduction Training on Anxiety, Depression, and Hopelessness in Menopausal Women: An Experimental Study.** *Psychiatric Annals*. [link]

Baetge, S. J., Filser, M., Renner, A., … & Penner, I.-K. (2023). **Supporting brain health in multiple sclerosis: Exploring the potential of neuroeducation combined with practical mindfulness exercises in the management of neuropsychological symptoms.** *Journal of Neurology*. [link]

Ciciolla, L., Addante, S., Shreffler, K. M., & Croff, J. M. (2023). **Effects of a Mindfulness-Based Parental Reflection Intervention on Pregnancy-Related Distress: A Pilot Study.** *Women's Health Reports*. [link]

Du, W., Yu, H., Liu, X., & Zhou, X. (2023). **Mindfulness training reduces slippery slope effects in moral decision-making and moral judgment.** *Scientific Reports*. [link]

El Aoufy, K., Pezzutto, A., Pollina, A., …& Matucci Cerinic, M. (2023). **Systemic Sclerosis Patients Experiencing Mindfulness-Based Stress Reduction Program: The Beneficial Effect on Their Psychological Status and Quality of Life.** *International Journal of Environmental Research and Public Health*. [link]

Fazia, T., Bubbico, F., Nova, A., …& Bernardinelli, L. (2023). **Beneficial Effects of an Online Mindfulness-Based Intervention on Sleep Quality in Italian Poor Sleepers during the COVID-19 Pandemic: A Randomized Trial.** *Intern J Environmental Research and Public Health*. [link]

Li, Y., Zhang, A. J., Meng, Y., … & Liu, X. (2023). **A Randomized Controlled Trial of an Online Self-Help Mindfulness Intervention for Emotional Distress: Serial Mediating Effects of Mindfulness and Experiential Avoidance.** *Mindfulness*. [link]

Moreno-Gómez, A., Luna, P., García-Diego, C., … & Cejudo, J. (2023). **Exploring the effects of a mindfulness-based intervention in university students: MindKinder adult version program (MK-A).** *Evaluation and Program Planning*. [link]

Norouzi, E., Rezaie, L., Bender, A. M., & Khazaie, H. (2023). **Mindfulness plus physical activity reduces emotion dysregulation and insomnia severity among people with major depression.** *Behavioral Sleep Medicine*. [link]

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Roemer, A., Sutton, A., Grimm, C., …& Medvedev, O. N. (2023). **Mindfulness-Based Attention Training in the Navy: A Feasibility Study.** *Psychological Reports*. [link]

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Siffredi, V., Liverani, M. C., Van De Ville, D., …& Ha-Vinh Leuchter, R. (2023). **The effect of**

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Skrzynski, C. J., Karoly, H., Ellingson, J., …& Hutchison, K. E. (2023). **Comparing the efficacy of mindfulness-based relapse prevention versus relapse prevention for alcohol use disorder: A randomized control trial.** *Journal of Studies on Alcohol and Drugs*. [link]

Stern, P., Kolodny, T., Tsafrir, S., …& Shalev, L. (2023). **Near and Far Transfer Effects of Computerized Progressive Attention Training (CPAT) Versus Mindfulness Based Stress Reduction (MBSR) Practice Among Adults With ADHD.** *Journal of Attention Disorders*. [link]

Sui, Y., Kor, P. P. K., Li, M., & Wang, J. (2023). **Effects of a Social Media–Based Mind-Body Intervention Embedded With Acupressure and Mindfulness for Stress Reduction Among Family Caregivers of Frail Older Adults: Pilot Randomized Controlled Trial.** *JMIR Formative Research*. [link]

Tran, T., Donnelly, C., Nalder, E., …& Finlayson, M. (2023). **Mindfulness-based stress reduction for community-dwelling older adults with subjective cognitive decline (SCD) and mild cognitive impairment (MCI) in primary care: A mixed-methods feasibility randomized control trial.** *BMC Primary Care*. [link]

Yan, W., Jiang, Z., Zhang, P., … & Peng, K. (2023). **Mindfulness Practice versus Physical Exercise in Enhancing Vitality.** *International Journal of Environmental Research and Public Health*. [link]

Zhang, X., Li, Y., Wang, J., …& Cao, F. (2023). **Effectiveness of Digital Guided Self-help Mindfulness Training During Pregnancy on Maternal Psychological Distress and Infant Neuropsychological Development: Randomized Controlled Trial.** *Journal of Medical Internet Research*. [link]

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Estave, P. M., Margol, C., Beeghly, S., …& Wells, R. E. (2023). **Mechanisms of mindfulness in patients with migraine: Results of a qualitative study.** *Headache: The Journal of Head and Face Pain*. [link]

Ng, H. Y., Wu, C. W., Huang, F. Y., … & Chuang, C.-H. (2023). **Enhanced electroencephalography effective connectivity in frontal low-gamma band correlates of emotional regulation after mindfulness training.** *Journal of Neuroscience Research*. [link]

Phillips, C. S., Bockhoff, J., Berry, D. L., …& Knoerl, R. (2023). **Exploring Young Adults' Perspectives of Participation in a Mindfulness-Based Music Therapy Intervention Before and During the COVID-19 Pandemic.** *Journal of Adolescent and Young Adult Oncology*. [link]

Requier, F., Hendy, A. S., Schlosser, M., …& Collette, F. (2023). **Association Between Meditative Capacities and Cognitive**

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Kalmar, J., Bressler, C., Gruber, E., …& Mander, J. (2023). **Mindfulness skills in trainee child and adolescent psychotherapists: Exploring the effects of mindfulness-based workshops in a mixed-methods study.** *Counselling and Psychotherapy Research*. [link]

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Oystrick, V., & Coholic, D. (2023). **Exploring the Feasibility and Acceptability of an Online Arts-Based Mindfulness Program for Adolescent Mothers.** *Social Work with Groups*. [link]

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Garland, E. L. (2023). **Mindfulness-Oriented Recovery Enhancement: An Evidence-Based Social Work Intervention for Addiction, Stress, and Chronic Pain.** *Social Work*. [link]

Grasmann, J., Almenräder, F., Voracek, M., & Tran, U. S. (2023). **Only Small Effects of Mindfulness-Based Interventions on Biomarker Levels of Inflammation and Stress: A Preregistered Systematic Review and Two Three-Level Meta-Analyses.**

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International Journal of Molecular Sciences. [link]

Heo, S., Kang, J., Umeakunne, E., …& Randolph, J. (n.d.). **Effects of Meditation Intervention on Self-management in Adult Patients With Type 2 Diabetes: A Systematic Literature Review and Meta-analysis.** *Journal of Cardiovascular Nursing*. [link]

Larraz, A. M. C., Moya, A. V., & Actis, C. C. (2023). **Mindfulness-Based Intervention and Sexuality: A Systematic Review.** *Trends in Psychiatry and Psychotherapy*. [link]

Leng, L. L., Yin, X. C., & Ng, S. M. (2023). **Mindfulness-based intervention for clinical and subthreshold perinatal depression and anxiety: A systematic review and meta-analysis of randomized controlled trial.** *Comprehensive Psychiatry*. [link]

Li, J., Li, C., Puts, M., …& Zhang, J. (2023). **Effectiveness of mindfulness-based interventions on anxiety, depression, and fatigue in people with lung cancer: A systematic review and meta-analysis.** *International Journal of Nursing Studies*. [link]

Mitsea, E., Drigas, A., & Skianis, C. (2023). **Brain-computer interfaces in digital mindfulness training for metacognitive, emotional and attention regulation skills: A literature review.** *Research, Society and Development*. [link]

Ong, J. C., & Kalmbach, D. A. (2023). **Mindfulness as an Adjunct or Alternative to CBT-I.** *Sleep Medicine Clinics*. [link]

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Teigen, A. (2023). **Mindfulness for depression management in men with prostate cancer.** *Journal of the American Academy of Physician Assistants*. [link]

Vadvilavičius, T., Varnagirytė, E., Jarašiūnaitė-Fedosejeva, G., & Gustainienė, L. (2023). **The Effectiveness of Mindfulness-Based Interventions for Police Officers' Stress Reduction: A Systematic Review.** *Journal of Police and Criminal Psychology*. [link]

Withrow, A., Russell, K., & Gillani, B. (2023). **Mindfulness training for law enforcement to reduce occupational impact: A systematic review and meta-analysis.** *The Police Journal*. [link]

Zhang, Z., Chang, X., Zhang, W., …& Zhao, G. (2023). **The Effect of Meditation-Based Mind-Body Interventions on Symptoms and Executive Function in People With ADHD: A Meta-Analysis of Randomized Controlled Trials.** *Journal of Attention Disorders*. [link]

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West Virginia University (K. Jochimsen, PI). **Development and feasibility of a mind-body intervention to improve physical activity for patients with chronic hip pain**. NIH/NCCIH project #1K23AT011922-01A1. [link]

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Highlights

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

Moral decision making sometimes involves weighing trade-offs between self-serving interests and causing harm to others. Social psychology experiments reveal a moral "slippery slope." That is, once experimental participants begin making decisions that serve their own interests but harm others, they progressively become more self-serving and less concerned about harm to others as time goes on. Moral decision-making includes decisions about what actions to take as well as judgments about how ethical those decisions are.

Mindfulness training might affect how moral decisions are made and judged by cultivating a present-moment focus that reduces goal-oriented behavior (seeking future gain) or by increasing empathy for others. **Du et al. [*Scientific Reports*]** tested the effect of Mindfulness-Based Stress Reduction (MBSR) on moral decision-making involving tradeoffs between benefits to self and harm to self and others.

The researchers randomly assigned 68 meditation-naïve Chinese participants (75% female; Average age = 30 years) to either an 8-week MBSR course or a wait-list control. The MBSR protocol was the standard MBSR protocol delivered in a Chinese-language format. All participants engaged in moral decision making and judgment tasks and completed Chinese-language versions of mindfulness (the Five Factor Mindfulness Questionnaire), emotional regulation, and failures in executive control (problems in planning, impulsivity, and motivation) questionnaires one week prior to and after intervention.

In the moral decision-making task, participant pain thresholds were assessed to determine the level of electric shock needed to evoke a pain of "8" on a 10-point pain scale. Participants then engaged in a series of 96 decision making trials in which they chose between receiving various amounts of money while receiving painful shocks or giving them to another "person" in the next room. There was, in fact, no other person in the next room. Participants then rated the other "person's" choices on the same task in terms of how moral their decisions were.

Results from the study showed that mindfulness and executive control scores were significantly higher in the MBSR group as compared to controls after the intervention. While the control group showed an increased willingness to inflict harm on another as compared to oneself from pre- to post-testing (the "slippery slope" effect), the MBSR group did not (partial η^2= 0.08).

Using Bayesian hierarchical drift diffusion modeling, the researchers established that the amount of money participants received for each decision had less of an effect on MBSR decision-makers than controls. In other words, MBSR suppressed the influence of increases in money on moral decision-making, whereas controls were more likely to morally justify causing harm to others when the amount of monetary compensation was sufficiently high. MBSR did not make participants more moral compared to their own baseline but reduced the magnitude of the slippery slope compared to controls.

In terms of moral judgment, participants became less judgmental of other's choices from pretesting to post-testing. Participants weighted the importance of money more and the importance of pain less during post-testing than pretesting. There was a difference between groups in this effect, however. For controls, the same amount of money justified more harm in post-testing than pretesting, whereas the amount of money had less of an effect on the mindfulness group's judgment.

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The study shows MBSR can shift the relative value of monetary gain in moral decision making and judgment involving harm compared to a wait-list control. The study is limited by the lack of an active control and the possibility that group differences in moral performance may owe more to the demand characteristics of having been in a mindfulness condition than to cognitive changes due to mindfulness per se.

Treatments for excessive alcohol use are often only moderately successful, and clinicians are always on the lookout for more effective interventions. Mindfulness-Based Relapse Prevention (MBRP) is a promising intervention that combines standard cognitive-behavioral relapse prevention with teaching substance users to mindfully resist acting impulsively on urges.

Most existing MBRP research with persons with alcohol use disorders does not compare MBRP to other empirically validated treatments. **Skrzynski et al. [*Journal of Studies on Alcohol and Drugs*]** tested the relative efficacy of MBRP to standard relapse prevention alone in reducing alcohol use in heavy alcohol users.

The researchers randomly assigned 182 heavy alcohol users (52% male; 92% Caucasian; average age = 44 years) who volunteered because they wished to reduce their drinking to MBRP or relapse prevention alone. At baseline, participants drank an average of 5 drinks per day, and had 12 heavy drinking days per month when they consumed more than 4 drinks per day. Forty-two percent also used cannabis at least once the past month.

Both treatments were delivered in eight weekly individual therapy sessions delivered over the course of 2 months, with follow-up appointments at weeks 20 and 32. Therapy was delivered by doctoral and post-doctoral psychology students with 3 days of specialized training in motivational interviewing, MBRP, and relapse prevention. Assessments at baseline, 4, 8, 20, and 32 weeks included an alcohol use questionnaire and timeline follow-back measures of alcohol use based on self-report.

The results showed that both groups significantly reduced their scores on an alcohol use questionnaire, and their average number of drinks per day and total number of heavy drinking days significantly declined from baseline to posttreatment. While reduction in heavy drinking days was equal for both groups at posttreatment, MBRP participants maintained their improvement in heavy drinking days in subsequent follow-up, whereas the relapse prevention group did not. By the end of the study, the MBRP participants had significantly fewer heavy drinking days than controls.

The efficacy of the treatment was equal for males and females. High levels of cannabis use led to continued decreases in the MBRP group in drinks per day and heavy drinking days in the follow-up period, but to increases in heavy drinking days in controls.

The study showed that MBRP and relapse prevention alone were equally effective in reducing drinks per day and heavy drinking days in alcohol users who wished to reduce their drinking, but only MBRP helped participants maintain their reduction in heavy drinking days out to 32 weeks.

The study is limited by potential participants being aware that the study treatment included mindfulness, and 18% of the sample had a history of experience with mindfulness. It is unclear whether the same results would obtain in a meditation-naïve cohort or one less favorable to the idea of mindfulness. The study is also limited by the relative inexperience of the students delivering the interventions.