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Beck, A. R., Verticchio, H., Seeman, S.,...Schaab, H. (2017). **A mindfulness practice for communication sciences and disorders undergraduate and speech-language pathology graduate students: Effects on stress, self-compassion, and perfectionism.** *American Journal of Speech-Language Pathology*. [link]

Bremner, J. D., Mishra, S., Campanella, C.,...Davis, L. (2017). **A pilot study of the effects of MBSR on PTSD symptoms and brain response to traumatic reminders of combat in operation enduring freedom/operation Iraqi freedom (OEF/OIF) combat veterans with PTSD.** *Frontiers in Psychiatry*. [link]

Britt, M., Pribesh, S., Hinton-Johnson, K., Gupta, A. (2017). **Effect of a mindful breathing intervention on community college students writing apprehension and writing performance.** *Community College Journal of Research and Practice.* [link]

Demarzo, M., Montero-Marin, J., Puebla-Guedea, M.,...Garcia-Campayo, J. (2017). **Efficacy of 8-and 4-session mindfulness-based interventions in a non-clinical population: A controlled study.** *Frontiers in Psychology*. [link]

Emerson, L. M., Rowse, G., Sills, J. (2017). **Developing a mindfulness-based program for infant schools: Feasibility, acceptability, and initial effects.** *Journal of Research in Childhood Education.* [link]

Fortuna, L. R., Porche, M. V., Padilla, A. (2017). **A treatment development study of a cognitive and mindfulness-based therapy for adolescents with co-occurring post-traumatic stress and substance use disorder.** *Psychology and Psychotherapy.* [link]

Heredia, L., Gasol, L., Ventura, D.,...Torrente, M. (2017). **MBSR training program increases psychological well-being, and emotional regulation, but not attentional performance. A pilot study.** *Mindfulness & Compassion.* [link]

Hwang, W. J., Lee, T. Y., Lim, K. O.,...Kwon, J. S. (2017). **The effects of four days of intensive mindfulness meditation training (templestay program) on resilience to stress: A randomized controlled trial.** *Psychology, Health & Medicine.* [link]

Keller, J., Ruthruff, E., Keller, P.,...Bertolini, K. (2017). **Your brain becomes a rainbow: Perceptions and traits of 4th-graders in a school-based mindfulness intervention.** *Journal of Research in Childhood Education.* [link]

Kielty, M., Gilligan, T., Staton, R., Curtis, N. (2017). **Cultivating mindfulness with third grade students via classroom-based interventions.** *Contemporary School Psychology.* [link]

Kuechler, W., Stedham, Y. (2017). **Management education and transformational learning: The integration of mindfulness in an MBA course.** *Journal of Management Education.* [link]

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Levett, K. M., Coughlan, S., Longridge, S.,...Adams, J. (2017). **Be well: A systems-based wellness intervention using mindfulness in the workplace-a case study.** *Journal of Management & Organization.* [link]

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Schuling, R., Huijbers, M., Jansen, H.,...Speckens, A. (2017). **The co-creation and feasibility of a compassion training as a follow-up to mindfulness-based cognitive therapy in patients with recurrent depression.** *Mindfulness.* [link]

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Wongtongkam, N., Lampoo, S., Choocherd, P., Chiangkuntod, S. (2017). **Partial efficacy of vipassana mindfulness approach in alcohol-dependent persons.** *Alcoholism Treatment Quarterly.* [link]

Zullig, K. J., Lander, L. R., Sloan, S.,...Faulkenberry, L. (2017). **Mindfulness-based relapse prevention with individuals receiving medication-assisted outpatient treatment for opioid use disorder.** *Mindfulness.* [link]

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Kerrigan, D., Chau, V., King, M.,...Sibinga, E. (2017). **There is no performance, there is just this moment: The role of mindfulness instruction in promoting health and well-being among students at a highly-ranked university in the united states.** *Journal of Evidence-Based Complementary & Alternative Medicine.* [link]

Klein, K. P., Lancaster, S. L. (2017). **Reexamining the association between facets of mindfulness and cognitive performance.** *Journal of Cognitive Enhancement.* [link]

Kroska, E. B., Miller, M. L., Roche, A. I.,...OHara, M. W. (2017). **Effects of traumatic experiences on obsessive-compulsive and internalizing symptoms: The role of avoidance and mindfulness.** *Journal of Affective Disorders.* [link]

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Lacaille, J., Sadikaj, G., Nishioka, M.,...Knäuper, B. (2017). **Daily mindful responding mediates the effect of meditation practice on stress and mood: The role of practice duration and adherence.** *Journal of Clinical Psychology.* [link]

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Noone, C., Hogan, M. J. (2017). **Improvements in critical thinking performance following mindfulness meditation depend on thinking dispositions.** *Mindfulness.* [link]

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Ribeiro, L., Atchley, R. M., Oken, B. S. (2017). **Adherence to practice of mindfulness in novice meditators: Practices chosen, amount of time practiced, and long-term effects following a mindfulness-based intervention.** *Mindfulness.* [link]

Tangney, J. P., Dobbins, A. E., Stuewig, J. B., Schrader, S. W. (2017). **Is there a dark side to mindfulness? Relation of mindfulness to criminogenic cognitions.** *Personality and Social Psychology Bulletin.* [link]

Viana, A. G., Paulus, D. J., Garza, M.,...Zvolensky, M. J. (2017). **Rumination and PTSD symptoms among trauma-exposed Latinos in primary care: Is mindful attention helpful?** *Psychiatry Research.* [link]

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Feng, X. J., Krägeloh, C. U., Billington, D. R., Siegert, R. J. (2017). **To what extent is mindfulness as presented in commonly used mindfulness questionnaires different from how it is conceptualized by senior ordained Buddhists?** *Mindfulness.* [link]

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Ho, R. T., Wan, A. H., Chan, J. S.,...Chan, C. L. (2017). **Study protocol on comparative effectiveness of mindfulness meditation and qigong on psychophysiological outcomes for patients with colorectal cancer: A randomized controlled trial.** *BMC Complementary and Alternative Medicine*. [link]

Law, H., Stahl, B., Avins, A.,...Pressman, A. (2017). **Fidelity measurement of a mindfulness-based stress reduction intervention in a randomized controlled feasibility trial for migraine patients.** *Journal of Patient-Centered Research and Reviews.* [link]

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Plaza García, I., Sánchez, C. M., Espílez, Á. S.,...García-Campayo, J. (2017). **Development and initial evaluation of a mobile application to help with mindfulness training and practice.** *International Journal of Medical Informatics*. [link]

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Watson-Singleton, N. N., Walker, J. H., LoParo, D.,...Kaslow, N. J. (2017). **Psychometric evaluation of the five facet mindfulness questionnaire in a clinical sample of African Americans.** *Mindfulness.* [link]

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Gurney-Smith, B., Downing, P., Kidd, K., McMillin, R. (2017). **Minding the gap: Developing mindfulness for adoption.** *Adoption & Fostering*. [link]

Hopwood, T. L., Schutte, N. S. (2017). **A meta-analytic investigation of the impact of mindfulness-based interventions on post traumatic stress.** *Clinical Psychology Review.* [link]

Kenuk, S., Porter, H. R. (2017). **The outcomes of mindfulness-based interventions for adults who have experienced a traumatic brain injury: A systematic review of the literature.** *American Journal of Recreation Therapy*. [link]

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Pascoe, M. C., Thompson, D. R., Jenkins, Z. M., Ski, C. F. (2017). **Mindfulness mediates the physiological markers of stress: Systematic review and meta-analysis.** *Journal of Psychiatric Research.* [link]

Paudyal, P., Jones, C., Grindey, C.,...Smith, H. (2017). **Meditation for asthma: Systematic review and meta-analysis.** *The Journal of Asthma.* [link]

Perestelo-Perez, L., Barraca, J., Peñate, W.,...Alvarez-Perez, Y. (2017). **Mindfulness-based interventions for the treatment of depressive rumination: Systematic review and meta-analysis.** *International Journal of Clinical and Health Psychology.* [link]

Valero, M., Cebolla, A. (2017). **Mindfulness training for adults and children with ADHD: Variables and outcomes.** *Current Developmental Disorders Reports.* [link]

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Vilarinho, S. (2017). **Management of sexual problems: The approach of mindfulness.** *Current Opinion in Psychiatry.* [link]

Young, K. S., van der Velden, A. M., Craske, M. G.,...Parsons, C. E. (2017). **The impact of mindfulness-based interventions on brain activity: A systematic review of functional magnetic resonance imaging studies.** *Neuroscience & Biobehavioral Reviews.* [link]

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Brown University (E. Loucks, PI). **Mindfulness influences on self-regulation: mental and physical health implications.** NIH/NCCIH project #3UH2AT009145-03S1. [link]

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Georgia State University (A. Owen-Smith, PI). **Trauma informed mindfulness based yoga intervention for juvenile justice involved youth.** NIH/NCCIH project #1R34AT009538-01. [link]

Johns Hopkins University (T. Mendelson, PI). **Promoting maternal health and wellbeing in neonatal intensive care through mindfulness.** NIH/NCCIH project #1R34AT009615-01. [link]

New York University (A. Shallcross, PI). **A telephone delivered mindfulness intervention for patients with comorbid depression and chronic disease.** NIH/NCCIH project #5K23AT009208-02. [link]

University of California, Los Angeles (M. Banks, PI). **Promoting adherence to anti-hypertensive medications and lifestyle guidelines through mindfulness practice.** NIH/NINR #1F31NR017350-01. [link]

University of California, Los Angeles (M. Irwin, PI). **Mindfulness meditation and insomnia in Alzheimer disease caregivers: Inflammatory and biological aging mechanisms.** NIH/NIA project #1R01AG056424-01. [link]

University of North Carolina Chapel Hill (S. Gaylord, PI). **Making friends with yourself- a depression prevention program for adolescent girls.** NIH/NCCIH project #5R34AT008822-02. [link]

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University of Toronto (Z. Segal, PI). **Reducing residual depressive symptoms with web-based mindful mood balance.** NIH/NIMH project #5R01MH102229-04. [link]

University of Washington (M. Jensen, PI). **Mechanisms of psychosocial treatments for chronic low back pain.** NIH/NCCIH project #1R01AT008559-01A1. [link]

Yale University (H. Kober, PI). **Regulation of craving: Brief neurocognitive training and neural mechanisms.** NIH/NIDA project #5P50DA009241-24. [link]

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Highlights

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

Mindfulness-based interventions (MBIs) are founded on the assumption that meditative practice increases mindfulness and that mindfulness, in turn, enhances psychological wellbeing. The evidence supporting this assumption is somewhat mixed. While some studies find that the extent and quality of a meditation practice is positively associated with improvement in mindfulness and wellbeing, others have not. The methodology by which some studies measure a meditation practice may be one reason for these diverse findings.

Some studies do not measure practice on a daily basis, but instead ask participants to estimate the quantity and quality of their practice over a period of weeks or months, increasing the likelihood of measurement error. **Lacaille et al. [*Journal of Clinical Psychology*]** investigated the relationship between meditative practice, mindfulness, and wellbeing by having MBI (Mindfulness-Based Stress Reduction or MBSR) participants complete daily diaries that rated these three variables.

The researchers studied the daily diaries of 117 MBSR participants (80% female, 86% Caucasian, 64% between 30-50 years of age) collected over a 49-day period. The MBSR program differed from the standard MBSR protocol by shortening at-home and in-class mindfulness meditation practice periods from 45-60 minutes to 20-30 minutes. Participants were sent daily text messages reminding them to complete online diaries. If participants failed to complete a diary entry that night, they were text messaged again the following morning. If they failed to respond to the second message within 8 hours, they could no longer make an entry for that day. In their diaries, participants indicated whether or not they had practiced, how long they had practiced, and the degree to which they had adhered to the practice instructions. They also responded to questions designed to rate how mindful they had been during the day and their degree of perceived stress, and positive and negative emotions.

The average participant completed 33 daily diary entries, practiced meditation for 29 minutes on 28 of those days, and rated their adherence to instructions as a "6.8" on a ten-point scale. Participants reported significantly greater mindfulness, less perceived stress, and more positive affect on days when they practiced meditation as compared to days when they did not. On any given day, practicing the meditation, longer practice duration, and better practice adherence were significantly associated with greater mindfulness, less perceived stress, greater positive affect, and less negative affect. Analyses of the intercorrelations between variables showed that the effect of the practice was indirect: meditation was mostly associated with increased mindfulness, and increased mindfulness was mostly associated with decreased stress and improved affect. Those participants who practiced meditation for longer periods over the course of the 49-day period reported being significantly more mindful and having significantly less negative affect than those who practiced for shorter periods.

These results support the hypothesis that meditation practice is an active ingredient of conventional MBI programs, providing evidence that the longer and more consistently participants practice meditation, the more mindful they become, and the better they feel. It also shows the importance of daily practice in MBIs since participants felt more mindful and felt better on days when they actually practiced meditation. This study is limited by its correlational as opposed to experimental design. It can prove association between meditative practice and mindfulness and wellbeing, but not causation.

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Many forms of meditation, including mindfulness meditation, make use of the breath as a point of attentional focus. Research has shown that meditation on the breath reduces respiration rate, heart rate and blood pressure, and increases heart rate variability. Are these physiological changes the result of the cognitive and affective aspects of maintaining a meditative focus, or are they simply the consequences of breathing more slowly? **Bernardi et al. [*Psychophysiology*]** investigated the long- and short-term respiratory and cardiovascular effects of meditation in experienced meditators and controls. In so doing, the researchers hoped to disentangle the physiological effects of slowed breathing from those of a maintained meditative focus.

The researchers recruited 41 participants (22% male, average age = 34 years) with prior meditation experience and 39 meditation-naive (54% male, average age = 25 years) controls. All of the meditators were beginning-to-intermediate yoga practitioners, although some had additional experience with vipassana, mindfulness, transcendental, or mantra meditation. The researchers instructed participants to lie down quietly on their backs with eyes closed while their heart rate, respiration, blood pressure, and arterial, tissue, and brain oxygen levels were monitored under a series of different conditions. The conditions were: 1) baseline measures of normal respiration, 2) two different periods of "paced breathing" during which participants synchronized their breathing to the beats of a metronome to achieve rates of 15 and 6 breaths per minute, 3) two different periods of metronome-paced breathing while silently reciting a mantra, known as "mantra meditation" (also at 15 and 6 breaths per minute), and 4) a five-minute body scan meditation.

The meditators differed from the controls on a variety of measures across all conditions: They tended to have significantly higher levels of blood oxygen saturation (partial η^2=0.19), brain oxygenation (partial η^2=0.19), finger tissue oxygenation (partial η^2=0.21), lower systolic blood pressure (partial η^2=0.07), and slower baseline respiration levels (partial η^2=0.28).
The body scan significantly decreased blood oxygen saturation in meditators and controls (partial η^2=0.36), while paced breathing without mantra significantly increased blood oxygen saturation for both groups. Paced breathing with mantra lessened the extent to which blood oxygen saturation increased. Paced breathing by itself, and mantra and body scan meditations by themselves, all significantly lowered brain oxygenation. Adding a mantra to paced breathing lowered brain oxygenation more than paced breathing alone. A similar pattern was observed for finger oxygenation, although it failed to reach significance.

Controls automatically took deeper breaths when breathing at 15 breaths per minute, but meditators did not. Adding a mantra lessened this deepening effect for controls. Both meditators and controls took deeper breaths while breathing at 6 breaths per minute, but adding a mantra lessened this effect for both groups. Breathing tended to be shallower during the body scan meditation, especially for control participants.

While paced breathing without mantra did not affect heart rate, the body scan and paced breathing with mantra slowed the heart rate (partial η^2=0.32). This effect carried over into a final "at rest" recording period after all interventions were completed. Only paced breathing without mantra increased heart rate variability (partial η^2=0.42), and none of the conditions acutely affected blood pressure.

The results indicate that meditation induces a hypometabolic state characterized by decreased blood oxygenation, reduced ventilatory stimulus, and reduced heart rate. None of these changes are attributable to changes in respiration rate. On the other hand, the increased heart rate variability sometimes observed in meditation may simply be the result of slowed breathing. The results also show that long-term meditation (at least in the context of yoga practice) helps optimize cardiovascular function as evidenced by increased blood oxygenation, slowed respiration rate, and lower systolic blood pressure.

The fact that all of the meditators were yoga practitioners limits generalization about the long-term cardiovascular benefits of meditation for other types of meditation practitioners.