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Editor-in-Chief

David S. Black, PhD, MPH

Highlights by

Seth Segall, PhD

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INTERVENTIONS

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

Askey-Jones, R. (2018). **MBCT: An efficacy study for mental health care staff.** *Journal of Psychiatric and Mental Health Nursing.* [link]

Bachmann, K., Lam, A. P., Sörös, P.,...Philipsen, A. (2018). **Effects of mindfulness and psychoeducation on working memory in adult ADHD: A randomised, controlled fmri study.** *Behaviour Research and Therapy.* [link]

Bakosh, L. (2018). **Audio-guided mindfulness training in schools and its effect on academic attainment: Contributing to theory and practice.** *Learning and Instruction.* [link]

Bostock, S., Crosswell, A. D., Prather, A. A., Steptoe, A. (2018). **Mindfulness on-the-go: Effects of a mindfulness meditation app on work stress and well-being.** *Journal of Occupational Health Psychology.* [link]

Cox, C. E., Hough, C. L., Jones, D. M.,...Greeson, J. M. (2018). **Effects of mindfulness training programmes delivered by a self-directed mobile app and by telephone compared with an education programme for survivors of critical illness: A pilot RCT.** *Thorax.* [link]

Garcia, M. C., Kozasa, E. H., Tufik, S.,...Hachul, H. (2018). **The effects of mindfulness and relaxation training for insomnia (MRTI) on postmenopausal women: A pilot study.** *Menopause.* [link]

Goldstein, E., Topitzes, J., Brown, R. L., Barrett, B. (2018). **Mediational pathways of meditation and exercise on mental health and perceived stress: A RCT.** *Journal Health Psychology.* [link]

Gray, L., Font, S., Unrau, Y., Dawson, A. (2018). **The effectiveness of a brief MBI for college freshmen who have aged out of foster care.** *Innovative Higher Education.* [link]

Haukaas, R. B., Gjerde, I. B., Varting, G.,...Solem, S. (2018). **A RCT comparing the attention training technique and mindful self-compassion for students with symptoms of depression and anxiety.** *Frontiers in Psychology.* [link]

Lopes, S. A., Vannucchi, B. P., Demarzo, M.,...Nunes, M. D. (2018). **Effectiveness of a mindfulness-based intervention in the management of musculoskeletal pain in nursing workers.** *Pain Management Nursing.* [link]

Moreno-Gómez, A. J., Cejudo, J. (2018). **Effectiveness of a mindfulness-based social-emotional learning program on psychosocial adjustment and neuropsychological maturity in kindergarten children.** *Mindfulness.* [link]

Osborn, R., Girgis, M., Morse, S.,...Roberts, L. (2018). **Mindfulness-Integrated CBT (micht) for reducing distress in parents of children with intellectual disability (ID): A case series.** *Journal of Developmental and Physical Disabilities.* [link]

Pan, W. L., Gau, M. L., Lee, T. Y.,...Wen, T. K. (2018). **Mindfulness-based programme on the psychological health of pregnant women.** *Women and Birth.* [link]

Querstret, D., Cropley, M., Fife-Schaw, C. (2018). **The effects of an online mindfulness intervention on perceived stress, depression and anxiety in a non-clinical sample: A RCT.** *Mindfulness.* [link]

Romcevich, L. E., Reed, S., Flowers, S. R.,...Mahan, J. D. (2018). **Mind-body skills training for resident wellness: A pilot study of a brief mindfulness intervention.** *Journal of Medical Education and Curricular Development.* [link]

Rosen, K. D., Paniagua, S. M., Kazanis, W.,...Potter, J. S. (2018). **Quality of life among women diagnosed with breast cancer: A RCT of commercially available mobile app-delivered mindfulness training.** *Psycho-Oncology.* [link]

Sams, D. P., Handley, E. D., Alpert-Gillis, L. J. (2018). **Mindfulness-based group therapy: Impact on psychiatrically hospitalized adolescents.** *Clinical Child Psychology and Psychiatry.* [link]

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Strege, M. V., Swain, D., Bochicchio, L.,...Richey, J. A. (2018). **A pilot study of the effects of MBCT on positive affect and social anxiety symptoms.** *Frontiers in Psychology.* [link]

Timm, C., Rachota-Ubl, B., Beddig, T.,...Kuehner, C. (2018). **Mindfulness-based attention training improves cognitive and affective processes in daily life in remitted patients with recurrent depression: A RCT.** *Psycho Psychosomatics.* [link]

Vaclavik, E. A., Staffileno, B. A., Carlson, E. (2018). **Moral distress: Using MBSR interventions to decrease nurse perceptions of distress.** *Clinical Journal of Oncology Nursing.* [link]

Warriner, S., Crane, C., Dymond, M., Krusche, A. (2018). **An evaluation of mindfulness-based childbirth and parenting courses for pregnant women and prospective fathers/partners within the UK NHS.** *Midwifery.* [link]

Wood, L., Roach, A. T., Kearney, M. A., Zabek, F. (2018). **Enhancing executive function skills in preschoolers through a mindfulness-based intervention: A RCT** *Psychology in Schools.* [link]

ASSOCIATIONS

Articles examining the correlates and mechanisms of mindfulness

An, Y., Yuan, G., Liu, Z.,...Xu, W. (2018). **Dispositional mindfulness mediates the relationships of parental attachment to PTSD and academic burnout in adolescents following the Yancheng tornado.** *Euro J Psychotrauma.* [link]

Chen, H. (2018). **Mindfulness and perceived social support in mediating the effect of psychological distress on sleep quality of college students.** *NeuroQuantology.* [link]

Cotter, E. W., Kelly, N. R. (2018). **Stress-related eating, mindfulness, and obesity.** *Health Psychology.* [link]

Curado, D., Barros, V., Opaleye, E.,...Noto, A. R. (2018). **The role of mindfulness in the**

insomnia severity of female chronic hypnotic users. *International J Behavioral Medicine.* [link]

Dutt, A. J., Wahl, H. W., Rupprecht, F. S. (2018). **Mindful vs. mind full: Processing strategies moderate the association between subjective aging experiences and depressive symptoms.** *Psychology and Aging.* [link]

Fanning, J., Osborn, C. Y., Lagotte, A. E., Mayberry, L. S. (2018). **Relationships between dispositional mindfulness, health behaviors, and hemoglobin a1c among adults with type 2 diabetes.** *Journal of Behavioral Medicine.* [link]

Ford, C. G., Shook, N. J. (2018). **Negative cognitive bias and perceived stress: Independent mediators of the relation between mindfulness and emotional distress.** *Mindfulness.* [link]

Grover, M. P., Jensen, M. P., Patterson, D. R.,...Day, M. A. (2018). **The association between mindfulness and hypnotizability: Clinical and theoretical implications.** *American Journal of Clinical Hypnosis.* [link]

Li, J., Lin, L., Zhao, Y.,...Wang, S. (2018). **Grittier Chinese adolescents are happier: The mediating role of mindfulness.** *Personality and Individual Differences.* [link]

Lim, J., Teng, J., Patanaik, A.,...Massar, S. A. A. (2018). **Dynamic functional connectivity markers of objective trait mindfulness.** *NeuroImage.* [link]

Priddy, S. E., Hanley, A. W., Riquino, M. R.,...Garland, E. L. (2018). **Dispositional mindfulness and prescription opioid misuse among chronic pain patients: Craving and attention to positive information as mediating mechanisms.** *Drug and Alcohol Dependence.* [link]

Schure, M. B., Simpson, T. L., Martinez, M.,...Kearney, D. J. (2018). **Mindfulness-based processes of healing for veterans with PTSD.** *J Alternative and Complementary Medicine.* [link]

Sharp, P. B., Sutton, B. P., Paul, E. J.,...Barbey, A. K. (2018). **Mindfulness training induces structural connectome changes in insula networks.** *Scientific Reports.* [link]

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Stocker, E., Englert, C., Seiler, R. (2018). **Self-control strength and mindfulness in physical exercise performance: Does a short mindfulness induction compensate for the detrimental ego depletion effect?** *Journal of Applied Sport Psychology*. [\[link\]](#)

Tortella-Feliu, M., Soler, J., Burns, L.,...García-Campayo, J. (2018). **Relationship between effortful control and facets of mindfulness in meditators, non-meditators and individuals with borderline personality disorder.** *Personality and Mental Health*. [\[link\]](#)

Upton, S. R., Renshaw, T. L. (2018). **Immediate effects of the mindful body scan practice on risk-taking behavior.** *Mindfulness*. [\[link\]](#)

Waldron, S. M., Gauntlett-Gilbert, J., Marks, E.,...Jacobs, K. (2018). **Dispositional mindfulness and its relationship with distress and functioning in adolescents with chronic pain and low-level pain.** *J Pediatric Psych*. [\[link\]](#)

Yang, C. H., Conroy, D. E. (2018). **Momentary negative affect is lower during mindful movement than while sitting: An experience sampling study.** *Psychology Sport Exercise*. [\[link\]](#)

Yavuz, B. G., Yavuz, M., Onal, A. (2018). **Examining the factors that are correlated with mindfulness with a focus on attention deficit hyperactivity symptoms.** *Persp Psyc Care*. [\[link\]](#)

METHODS

Articles developing empirical procedures to advance the measurement and methodology of mindfulness

Birtwell, K., Williams, K., Marwijk, H. V.,...Sheffield, D. (2018). **An exploration of formal and informal mindfulness practice and associations with wellbeing.** *Mindfulness*. [\[link\]](#)

Calvillo, D. P., Flores, A. N., Gonzales, L. C. (2018). **A brief mindfulness induction after encoding decreases false recognition in the Deese-Roediger-Mcdermott paradigm.** *Psychology of Consciousness*. [\[link\]](#)

Carsley, D., Heath, N. L. (2018). **Evaluating the effectiveness of a mindfulness coloring activity for test anxiety in children.** *J Educat Res*. [\[link\]](#)

Doyle, S. L., Brown, J. L., Rasheed, D.,...Jennings, P. A. (2018). **Cost analysis of ingredients for successful implementation of a mindfulness-based professional development program for teachers.** *Mindfulness*. [\[link\]](#)

Johansson, B., Bjuhr, H. (2018). **Train 4 good: An eight-month mindfulness program live on internet for long-term mental fatigue and emotional distress after an acquired brain injury.** *Archives of Psychology*. [\[link\]](#)

Kelm, D. J., Ridgeway, J. L., Gas, B. L.,...Benzo, R. P. (2018). **Mindfulness meditation and interprofessional cardiopulmonary resuscitation: A mixed-methods pilot study.** *Teaching and Learning in Medicine*. [\[link\]](#)

Meischke, H., Lilly, M., Beaton, R.,...Baseman, J. (2018). **A multi-level intervention program to reduce stress in 9-1-1 telecommunicators.** *BMC Public Health*. [\[link\]](#)

Salmoirago-Blotcher, E., Decosta, J., Harris, K.,...Snyder, P. (2018). **Exploring synergistic effects of aerobic exercise and mindfulness training on cognitive function in older adults: Protocol for a pilot RCT.** *Medicine*. [\[link\]](#)

Salvo, V., Kristeller, J., Marin, J. M.,...Garcia-Campayo, J. (2018). **Mindfulness as a complementary intervention in the treatment of overweight and obesity in primary health care: Study protocol for a RCT.** *Trials*. [\[link\]](#)

Strauss, C., Lea, L., Hayward, M.,...Rosten, C. (2018). **Mindfulness-based exposure and response prevention for obsessive compulsive disorder: Findings from a pilot RCT.** *J Anxiety Disord*. [\[link\]](#)

Trombka, M., Demarzo, M., Bacas, D. C.,...Garcia-Campayo, J. (2018). **Study protocol of a multicenter RCT of mindfulness training to reduce burnout and promote quality of life in police officers.** *BMC Psychiatry*. [\[link\]](#)

Verhaeghen, P. (2018). **The mindfulness manifold: Exploring how self-preoccupation,**

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self-compassion, and self-transcendence translate mindfulness into positive psychological outcomes. *Mindfulness.* [\[link\]](#)

REVIEWS

Articles reviewing content areas of mindfulness or conducting meta-analyses of published research

Al Daken, L. I., Ahmad, M. M. (2018). **The implementation of MBIs and educational interventions to support family caregivers of patients with cancer: A systematic review.** *Perspectives in Psychiatric Care.* [\[link\]](#)

Auten, D., Fritz, C. (2018). **Mental health at work: How mindfulness aids in more ways than one.** *Organizational Dynamics.* [\[link\]](#)

Bender, S. L., Roth, R., Zielenski, A.,...Chermak, A. (2018). **Prevalence of mindfulness literature and intervention in school psychology journals from 2006-2016.** *Psych in School.* [\[link\]](#)

DeLuca, S. M., Kelman, A. R., Waelde, L. C. (2018). **A systematic review of ethnoracial representation and cultural adaptation of mindfulness- and meditation-based interventions.** *Psychological Studies.* [\[link\]](#)

Hess, D. (2018). **Mindfulness-Based interventions for hematology and oncology patients with pain.** *Hematology/oncology Clinics of North America.* [\[link\]](#)

Iacona, J., Johnson, S. (2018). **Neurobiology of trauma and mindfulness for children.** *Journal of Trauma Nursing.* [\[link\]](#)

Iacono, G. (2018). **An affirmative mindfulness approach for lesbian, gay, bisexual, transgender, and queer youth mental health.** *Clinical Social Work Journal.* [\[link\]](#)

Mehan, S., Morris, J. (2018). **A literature review of breathworks and mindfulness intervention.** *British J Healthcare Manag.* [\[link\]](#)

Owens, O. L., Beer, J. M., Reyes, L. I.,...McDonnell, K. K. (2018). **Mindfulness-based symptom and**

stress management apps for adults with chronic lung disease: Systematic search in app stores. *JMIR MHealth and UHealth.* [\[link\]](#)

Willekens, B. M., Perrotta, G., Cras, P., Cools, N. (2018). **Into the moment: Does mindfulness affect biological pathways in multiple sclerosis?** *Frontiers Behav Neuroscience.* [\[link\]](#)

TRIALS

Research studies newly funded by the National Institutes of Health (MAY 2018)

Miriam Hospital (E. Salmoirago-Blotcher, PI). **Role of mindfulness training in the promotion of medication adherence in heart failure outpatients.** NIH/NHLBI project #1R21HL140492-01. [\[link\]](#)

Sepulveda Research Corporation (S. Taylor, PI). **Complementary and integrative health for pain in the VA: A national demonstration project.** Veteran Affairs project #1IU1HX002607-01. [\[link\]](#)

University of Rochester (J. Moynihan, PI). **MBSR for family caregivers of dementia patients.** NIH/NIA project # 5R01AG052495-03. [\[link\]](#)

University of Southern California (D. Black, PI). **Neural mechanisms in women's treatment and early recovery.** NIH/NIDA project #5R01DA038648-04. [\[link\]](#)

Wake Forest University (F. Zeidan, PI). **Brain mechanisms supporting mindfulness meditation-based chronic pain relief.** NIH/NCCIH project #1R01AT009693-01. [\[link\]](#)

Wake Forest University (A. Adler, PI). **Effects of mindfulness meditation on pain and heart rate variability.** NIH/NCCIH project #5F30AT009165-03. [\[link\]](#)

Washington University (T. Braver, PI). **Neural mechanisms of mindfulness: Discordant twin design.** NIH/NCCIH project #5R21AT009483-02. [\[link\]](#)

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HIGHLIGHTS

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

Work-related stress contributes to a variety of health ailments including anxiety, depression, heart disease, and adult-onset diabetes. Up to 8% of U.S. health care costs are attributable to work-related stress. Mindfulness-based Interventions (MBIs) can reduce stress, but finding qualified teachers, allocating meeting spaces, and arranging for employees to attend sessions can be challenging. Consequently, it remains difficult to scale-up MBIs to meet the needs of larger corporations.

Bostock et al. (*Journal of Occupational Health Psychology*) conducted a randomized, controlled study of whether a mindfulness app, as a lower-cost alternative to in-person training, could reduce work-related stress among corporate employees.

The researchers randomly assigned 238 office workers (average age = 35 years; 59% female) from two United Kingdom Fortune 500 companies to a mindfulness group or a wait-list control. Mindfulness participants were provided access to an app called Headspace, containing several short introductory mindfulness videos and 45 guided mindfulness meditation sessions lasting 10-20 minutes. Sessions offer sequential, graduated instruction on key aspects of mindfulness practice. Participants were instructed to listen to one session per day for 45 days. They were assessed on psychological measures, job strain, perceived workplace social support, and blood pressure at baseline, post-intervention, and 2 months after the intervention had ended.

The employees completed an average of 17 of the 45 meditation sessions: 13% completed 0 sessions, 74% completed at least 6 sessions, 68% completed at least 10 sessions, 23% completed at least 25 sessions, and 2% completed all 45 sessions. The mindfulness group showed significantly greater

improvement on wellbeing (partial $\eta^2=.04$), mood ($\eta^2=.04$), depression ($\eta^2=.03$), anxiety ($\eta^2=.005$), job strain ($\eta^2=.04$), and perceived workplace social support ($\eta^2=.07$). Further analysis of job strain showed that perceived job control improved even though perceived job demands remained the same. The mindfulness group also showed a trend towards lower systolic blood pressure ($\eta^2=.002$).



Improvements in wellbeing ($\eta^2=.05$), mood ($\eta^2=.06$), depression ($\eta^2=.06$), and anxiety ($\eta^2=.15$) were significantly associated with the number of meditation sessions participants completed. Only employees who completed more than 10 meditations during the 45 days significantly improved. Employees in the mindfulness group maintained their improvement on wellbeing, job strain, and depression at 2 months post-intervention.

The results show that using a meditation app at least 10 times over the course of a month-and-a-half can improve wellbeing and perceived job control in healthy office-workers. These effects were dose-dependent and persisted up to 2 months after the intervention. The study is limited by the absence of an active control group, and the brevity of its follow-up period.

Mindful people have the generalized tendency to be aware of the present moment with an attitude of openness in day-to-day life. Researchers are interested in discovering whether mindful people exhibit a unique pattern of brain activity. **Lim et al. [*NeuroImage*]** used brain imaging to explore the dynamic functional connectivity within and between brain networks of people with high versus low mindfulness levels. Functional connectivity is a measure of the degree to which different brain regions vary their activity together in synchrony. The researchers measured how the

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functional connections between different brain networks varied over time.

The researchers selected participants from a pool of 125 people who had previously completed a breath-counting task. For this task, participants counted their breaths from 1 to 9 repeatedly for twenty minutes while the researchers tracked how often they lost count. Participants who performed in the top third on this task were identified as highly mindful, while those in the lower third were designated as less mindful.

The high and low mindfulness participants were then invited back to the lab for functional magnetic resonance (fMRI) scans while in a resting state. Data were obtained for 21 high (average age=24 years; 38% male) and 18 low mindfulness participants (average age = 22 years; 28% male). Participants also completed the Five Facet Mindfulness Questionnaire, or FFMQ. The researchers studied three fMRI scan variables: the total time spent in different brain states, the number of transitions between states, and the average dwell time within each state.

There are two types of brain connectivity: within- and between-network connectivity. Within-network connectivity is the degree to which the components of a network synchronize their activity, while between-network connectivity is the degree to which different networks either coordinate their activity or remain segregated from each other.

The researchers further identified two distinct brain connectivity states. One, labeled the “task ready” state, showed strong within-network correlations for the Default Mode (DMN) and Salience (SAL) networks, and a strong dissociation between the DMN and the combined (SAL) and Executive Control (ECN) networks. The other state, labeled the “idling” state, showed weaker within-network correlations and a smaller degree of dissociation between the DMN and other networks. The “task ready” state is an alert state of readiness to perform a task, while the “idling” state is a state of low attentiveness in which cognitive resources are conserved.

The results showed that the high mindfulness group spent significantly more time in the task ready state and less time in the idling state than the low mindfulness group. The high mindfulness group also significantly transitioned between states more often. The FFMQ correlated with total time in the task ready state ($r=.32$), but the correlation was no longer significant when corrected for multiple comparisons.

When the degree of connectivity was averaged for the within and between networks over time as a measure of static connectivity, the high mindfulness group showed stronger within-network connectivity for the DMN and SAL and a stronger degree of segregation of the DMN from the dorsal attention network.



This study shows that highly mindful people have a unique pattern of brain activity compared to those who are less mindful. Mindful people transition more frequently between brain states and spend more time in the task ready state. This suggests both greater attentiveness and preparedness to engage in tasks, and greater flexibility in shifting attentional focus. Mindful people also show greater within-network integration and between-network segregation, which may indicate increased attentional focus and decreased mind-wandering. These results reinforce previous findings regarding the default mode, executive control, and salience networks, and their central role in the neurobiology of mindfulness.

The study is limited by the degree to which the breath-counting task can be seen as an adequate measure of mindfulness, as opposed to being a measure of just one component of mindfulness, namely concentration.