INTerventions

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


Keng, S. L., Tan, J. X. (2017). Effects of brief mindful breathing and loving-kindness meditation on shame and social problem solving abilities among individuals with high borderline personality traits. Behaviour Research and Therapy. [link]


Cillessen, L., van de Ven, M. O., Karremans, J. C. (2017). The role of trait mindfulness in quality of life and asthma control among adolescents with asthma. *Journal of Psychosomatic Research.* [link]


Panno, A., Giacomantonio, M., Carrus, G.,...,Mannetti, L. (2017). *Mindfulness, pro-

environmental behavior, and belief in climate change: The mediating role of social dominance. Environment and Behavior.* [link]


**REVIEWS**

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


mindfulness and compassion in Latin countries? Frontiers in Psychology. [link]


TRIALS

Research studies newly funded by the National Institutes of Health (JUL 2017)

Columbia University Health Sciences (C.E. Monk, PI). Preventing postpartum depression: A dyadic approach adjunctive to obstetric care. NIH/NIHICCH project #1R01HD092062-01. [link]

Northwestern University at Chicago (D. Victorson, PI). Creating and optimizing mindfulness measures to enhance and normalize clinical evaluation (COMMENCE). NIH/NCCIH project #1R01AT009539-01. [link]

Ohio State University (R.S. Prakash, PI). Mindfulness-based intervention and transcranial direct current brain stimulation to reduce heavy drinking. NIH/NIAAA project #5R21AA024926-02. [link]

University of Washington (M.P. Jensen, PI). Hypnosis and meditation for pain management in veterans. NIH/NCCIH project #5R01AT008336-04. [link]
Being a good preschool teacher is no easy matter. Good teachers are both self-aware and socially aware. They are sensitive to children’s developmental levels, learning styles, familial and cultural contexts, and social and emotional competencies. Good teachers must simultaneously self-regulate their inner emotional states and vigilantly monitor the complexities of classroom process while maintaining a focus on educational goals.

All of this is important because teacher’s social and emotional competencies play a crucial role in facilitating preschoolers’ personal and academic growth. This raises the question of how to help teachers develop the personal qualities they need to foster optimum teacher-pupil relationships.

One way might be to help teachers develop higher levels of dispositional mindfulness, or nonjudgmental moment-by-moment attentiveness. This may be especially important when workplace stress—the combined effect of high job difficulty, low perceived support, and low sense of control—makes preschool teaching even harder.

Becker et al. [Journal of School Psychology] analyzed data from an online survey of preschool teachers to test the relationships between teachers’ dispositional mindfulness, their perception of their degree of closeness and conflict with their pupils, and their levels of depression and perceived workplace stress.

The researchers explored data from an online staff wellness survey of 1,001 preschool teachers (98% female; 89% Caucasian; 51% college graduates) working for Head Start in Pennsylvania. The teachers completed self-report measures of the perceived quality of their relationships with their students (closeness vs. conflict), dispositional mindfulness (as measured by the Cognitive and Affective Mindfulness Scale-Revised), depressive symptoms, and perceived workplace stress.

Results showed that higher levels of dispositional mindfulness were significantly associated with higher levels of perceived closeness with students ($r = .20$) and negatively associated with perceived conflict with students ($r = -.28$), depressive symptoms ($r = -.55$), and workplace stress ($r = -.25$).

A path analysis showed that mindfulness’s positive association with student closeness was an entirely direct one, and not indirectly due to mindfulness’s relationships with depressive symptoms or workplace stress. Mindfulness’s negative association with student conflict was primarily direct but there was also an indirect pathway mediated by mindfulness’s association with fewer depressive symptoms.

The study shows that preschool teachers who report being more mindful also report having closer, less conflictual relationships with students, and feeling less stressed and depressed. It adds support to the hypothesis that improving teacher’s mindfulness may improve teacher morale and mental health, as well as teacher-pupil relations.

The study is limited by the absence of a measure of social desirability bias. Additionally, its measure of student-teacher relationships only ascertains teacher perceptions of those relationships. The fact that teachers rated their relationships with students “in general,” makes the results especially vulnerable to reporting bias.
Elderly anxiety and depression sufferers often report subjective problems with memory and cognition. They also perform more poorly on objective measures of short-term memory, verbal fluency, and the ability to ignore irrelevant cues while focusing on a task.

Stress can play an important role in worsening anxiety and depression and also in degrading cognitive function. There is evidence that cortisol, a hormone secreted during stress, can have a harmful effect on brain cells in the hippocampus, which may in turn negatively affect memory and cognition. Reducing stress may therefore yield a double benefit: reducing anxiety and depression, and improving memory and cognition.

Wetherell et al. [Journal of Clinical Psychiatry] explored whether Mindfulness-Based Stress Reduction (MBSR) could improve clinical symptoms and cognitive functioning better than a control group in elderly people suffering from anxiety and/or depression who also experience subjective cognitive difficulties.

The researchers randomly assigned 103 elderly patients (average age = 72 years; 75% Female; 83% Caucasian) with clinical diagnoses of anxiety and/or depressive disorders and with subjective cognitive complaints to either an 8-week group MBSR intervention or an 8-week Health Education control intervention. The Health Education groups met for the same frequency and duration as the MBSR groups, but focused on understanding and managing anxiety and depression, eating well, managing medications, and communicating with one’s health care providers.

Patients were assessed at baseline, at the end of the intervention, and at 3-and-6-month follow-ups. Outcomes were assessed on measures of psychiatric symptoms, verbal memory, verbal fluency, the ability to ignore distracting cues and stay focused on a task, mindfulness (as measured by the Cognitive and Affective Mindfulness Scale-Revised), and average peak salivary cortisol. Despite randomization, the health education controls were, on the average, two years older than the MBSR participants, had a higher burden of illness, and were twice as likely to be prescribed antidepressants.

Results showed that MBSR participants had a significantly greater improvement in their immediate verbal recall of words on a list (effect size = 0.28) and information contained in stories (effect size = 0.42) than controls. They also showed significantly greater improvements in depression (effect size = 0.46), worry (effect size = 0.42), and mindfulness (effect size = 0.57).

Blinded raters rated 47% of the MBSR participants as either “much” or “very much clinically improved,” compared to 27% of the health education participants. This greater clinical improvement for MBSR patients was maintained at 3-and-6-month follow-up, when a significant improvement in anxiety also emerged for MBSR participants.

No group differences were found for either verbal fluency or the ability to ignore distracting irrelevant cues. There was no overall group difference in peak cortisol level, but a group difference emerged when only the data from participants with baseline cortisol levels above the median were analyzed. MBSR participants above the median significantly reduced their cortisol levels, while control participants above the median trended towards even higher levels.

The study demonstrates that MBSR significantly improves psychiatric symptoms and immediate verbal recall in elderly patients with depression and anxiety, and lowers peak cortisol levels for patients with high baseline peaks. The failure to document improvement on the other cognitive measures may reflect the insensitivity of the paper-and-pencil measures used. Computer administered tests might have proved more sensitive to change. The study is also limited by baseline differences between the treatment groups. The fact that health education participants were somewhat older, sicker, and more likely to be on medication may account for some of the differences in group improvement.