Interventions

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


training paradigms in high worriers. 
*Mindfulness.* [link]

*Mindfulness.* [link]

Panahi, F., Faramarzi, M. (2016). *The effects of mindfulness-based cognitive therapy on depression and anxiety in women with premenstrual syndrome. Depression Research and Treatment.* [link]


Van der Gucht, K., Takano, K.,...Raes, F. (2016). *A mindfulness-based intervention for adolescents and young adults after cancer treatment: Effects on quality of life, emotional distress, and cognitive vulnerability.* *Journal of Adolescent and Young Adult Oncology.* [link]


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**ASSOCIATIONS**

Articles examining the correlates and mechanisms of mindfulness

Berkovich-Ohana, A., Glicksohn, J., Ben-Soussan, T., Goldstein, A. (2016). *Creativity is enhanced by long-term mindfulness training and is negatively correlated with trait default-mode-related low-gamma inter-hemispheric connectivity.* *Mindfulness.* [link]


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American Mindfulness Research Association

International Journal for the Advancement of Counselling. [link]


Im, S., Follette, V. M. (2016). Rumination and mindfulness related to multiple types of trauma exposure. Translational Issues in Psychological Science. [link]


METHODS

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


Fulwiler, C., Siegel, J. A., Allison, J.,...King, J. A. (2016). Keeping weight off: Study protocol of an RCT to investigate brain changes associated

with mindfulness-based stress reduction. BMJ Open. [link]


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**REVIEWS**

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


Semple, R. J., Droultman, V., Reid, B. A. (2017). Mindfulness goes to school: Things learned (so far) from research and real-world experiences. Psychology in the Schools. [link]


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**TRIALS**

Research studies newly funded by the National Institutes of Health (DEC 2016)

National University of Natural Medicine (A. Senders, PI). MBSR for multiple sclerosis: Feasibility, durability, and clinical outcomes. NIH/NCCIH project #5K23AT008211-03. [link]

University of California, San Francisco (O. Tymofiyeva, PI). A network approach to study brain plasticity in children with cognitive training. NIH/NCCIH project #1R21HD086654-01.
Highlights

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

Schizophrenia is a severe, prolonged psychiatric illness affecting over 3,000,000 Americans with symptoms including delusions, hallucinations, apathy, and social withdrawal. The standard treatment for schizophrenia involves medication, education, and social support. Despite treatment, most patients suffer from residual symptoms that can negatively impact vocational and social functioning and quality of life. Using a randomized, controlled, multisite design, Wang et al. [Neuropsychiatric Disease and Treatment] compared the efficacy of a novel six-month mindfulness-based psycho-educational program in reducing schizophrenic symptoms and disability to that of standard psychiatric care with and without conventional psycho-education.

The researchers recruited 138 patients with schizophrenic-spectrum disorders (52% male, average age = 24) from two Hong Kong outpatient clinics and randomly assigned them to one of three conditions: 1) a Mindfulness-Based Psycho-educational Group (MBPG), 2) a Conventional Psycho-educational Group (CPG) or 3) treatment-as-usual (TAU) alone. MBPG and CPG were both offered as supplements to treatment-as-usual, and were delivered in twelve two-hour bimonthly sessions over the course of six months. MBPG focused on increasing awareness of bodily sensations, thoughts, and feelings relating to illness, controlling negative thoughts and perceptions, and enhancing illness management, problem-solving and relapse prevention. It emphasized acceptance and de-centering strategies and included mindfulness home practice. CPG emphasized education on schizophrenia, survival and life skills, relapse prevention, and resilience promotion. TAU included medication, psychiatric consultation, brief education about illness and treatment, nurse and social work services, and referrals for medical treatment and psychological counseling as indicated.

Outcome measures were obtained at baseline, and at 1 week and 6 months after intervention completion. Measures included psychosocial functioning, re-hospitalization, psychiatric symptoms, insight into illness/treatment, recovery, and mindfulness (the Five Facet Mindfulness Questionnaire of FFMQ).

The MBPG patients showed significantly greater improvement in psychosocial functioning, positive and negative symptoms, recovery, and insight into their illness (overall partial $\eta^2 = .54$) than either the CPG or TAU patients. These patients were also significantly less likely to be re-hospitalized: 37% of the TAU, 27% of the CPG, and 11% of the MBGP patients were re-hospitalized during the 6-month follow-up. The magnitude of differences between the groups was moderate-to-large. For example, on the Positive and Negative Symptoms Scale at 6-month follow-up, MBGP patients earned lower average symptom scores (70) than either CPG (84) or TAU (97) patients. MBGP patients showed significant increases in mindfulness on the FFMQ, which was not administered to the other groups. Ninety-five percent of the patients successfully completed the six-month interventions (they attended at least 7 classes and were available for follow-up data collection). No adverse reactions were observed for any group.

This study shows that a mindfulness-based psycho-educational intervention expressly designed for schizophrenic patients can be well tolerated and result in better illness outcomes than either standard treatment alone or standard treatment supplemented by a more typical psycho-educational approach. This is an important finding because of the widely held belief that psychotic patients can neither tolerate nor benefit from mindfulness-based interventions. The study is limited by the fact that older schizophrenic patients with longer disease courses are underrepresented in its sample, and that the advanced practice nurses running the different groups may not have had an equivalent extent of training in the interventions used.
Dispositional mindfulness is the generalized tendency to be mindful in daily life, but mindfulness levels can also be situational. Parenting-specific mindfulness, for example, is mindfulness occurring within the context of parenting. It’s the tendency to be nonjudgmental, accepting and emotionally aware of and compassionate toward oneself and one’s child, and to be able to listen to one’s child with full attention. Parenting-specific mindfulness may benefit the parent-child relationship by helping parents and children cope with stress within the family relationship. Laurent et al. [Developmental Psychology] tested this hypothesis by measuring the impact of both maternal dispositional mindfulness and parenting-specific mindfulness on maternal and infant stress hormone (cortisol) levels during and after exposure to a stressor.

The researchers recruited 73 low-income mother-infant pairs (77% Caucasian; average maternal age = 27; 51% married; median income=$10,000-$19,000) who were part of a larger longitudinal study. At 3 months postpartum, the mothers completed self-report measures of dispositional mindfulness (the Five Facet Mindfulness Questionnaire), parenting-specific mindfulness (Interpersonal Mindfulness in Parenting-Infant Version) and the degree of life stress during the prior three months. At 6 months postpartum, the mother-infant pairs participated in a “still face” task in which the mother maintained an unwavering neutral facial expression while face-to-face with her infant for two full minutes. The mother’s failure to react to the infant’s attention-getting bids during this task is stressful for the infant, who striving to regain the mother’s attention and failing to do so, may start to whine or cry in response to not receiving attention. Samples of maternal and infant saliva were obtained prior to, immediately after, and 15 and 45 minutes after the still face task. The saliva was assayed for cortisol, a hormone that reflects physiological stress. The researchers then studied the impact of maternal dispositional and parenting-specific mindfulness (as measured at 3 months postpartum) on maternal and infant peak cortisol levels during the still face task, and also the rate it took for cortisol levels to return to baseline after the task (the rate of recovery from stress).

Parenting-specific mindfulness demonstrated significant effects, while dispositional mindfulness failed to show significance on any of the outcomes. Higher levels of parenting-specific mindfulness were significantly associated with faster maternal cortisol recovery (accounting for 14% of the variance). There was also a significant interaction between parenting-specific mindfulness and the degree of life stress experienced by the mothers experienced on cortisol recovery rates after the still face task (accounting for 24% of the variance). Mothers who were low on parenting-specific mindfulness and high on life stress had a faster rate of cortisol return to baseline; mothers with high levels of parenting-specific mindfulness and high levels of life stress showed a slower rate of cortisol return to baseline. Lastly, infants of mothers who had high levels of parenting-specific mindfulness and high on levels of life stress had lower peak cortisol levels (accounting for 10% of the variance). In other words, mindful parents with high stress lives showed an extended stress response with slow recovery, while their offspring showed less of a peak stress response. It may be that parenting-specific mindfulness prolongs maternal stress arousal since the mindful mothers are more fully attentive to their infants’ distress, and this higher degree of maternal attunement in turn protects their infants from higher physiological stress levels.

The study underscores the value of construing mindfulness as something embedded and deployed within specific life contexts such as parenting, rather than as a disposition that generalizes equally across all behavioral domains. It demonstrates that parental mindfulness influences and moderates physiological stress in mother-infant pairs. The pattern of findings in this study may be specific to lower-income families, as they may, on average, experience higher levels of life stress compared to families with higher incomes.