

20 mindfulness & compassion abstracts

september '14 newsletter

(Aalderen, Breukers et al. 2014; Bowen, Witkiewitz et al. 2014; Brotto and Basson 2014; Catarino, Gilbert et al. 2014; Dahl, Rossberg et al. 2014; Davis, Manley et al. 2014; Gecht, Kessel et al. 2014; Goodwin, Piazza et al. 2014; Goyal, Singh et al. 2014; Hawley, Schwartz et al. 2014; Jazaieri, McGonigal et al. 2014; Ly, Trüschel et al. 2014; Moll, Weingartner et al. 2014; Rajguru, Kolber et al. 2014; Singleton, Holzel et al. 2014; Soler, Cebolla et al. 2014; Wade, Hoyt et al. 2014; Watson, Steckley et al. 2014; Williams, Crane et al. 2014; Zoogman, Goldberg et al. 2014)

Aalderen, J., W. Breukers, et al. (2014). **"The role of the teacher in mindfulness-based approaches: A qualitative study."** *Mindfulness* 5(2): 170-178. <http://dx.doi.org/10.1007/s12671-012-0162-x>

In the last decade, mindfulness-based interventions have been shown to be effective interventions for both psychiatric disorders and chronic and severe physical conditions, such as cancer. The literature consistently stresses the importance of mindfulness teachers having an ongoing experiential engagement with mindfulness meditation practice in addition to theoretical knowledge in order to be effective as a teacher. However, there has been little systematic investigation of the role of the mindfulness teacher. This study explores the role of the mindfulness-based teacher from the perspective of both participant and teacher. Three qualitative techniques are used to obtain information: in-depth interviews of mindfulness training participants (n = 10) and teachers (n = 9); a focus group consisting of mindfulness teachers (n = 6); and observation by participation in a mindfulness-based cognitive therapy course (MBCT). These three sources of information enabled us to use triangulation to come to our conclusions. A thematic analysis approach was used to derive central themes from the interviews. Analyses resulted in four overarching themes characterising the teacher-participant relationship in MBCT: embodiment, empowerment, non-reactivity and peer support. The embodiment of the method by the teacher, the teaching of an empowering way of dealing with problems and group processes are mentioned as key factors. Group processes seem to be underestimated by the teachers in our study. Further quantitative research is necessary to validate the results of this explorative study.

Bowen, S., K. Witkiewitz, et al. (2014). **"Relative efficacy of mindfulness-based relapse prevention, standard relapse prevention, and treatment as usual for substance use disorders: A randomized clinical trial."** *JAMA Psychiatry* 71(5): 547-556. <http://dx.doi.org/10.1001/jamapsychiatry.2013.4546>

Importance Relapse is highly prevalent following substance abuse treatments, highlighting the need for improved aftercare interventions. Mindfulness-based relapse prevention (MBRP), a group-based psychosocial aftercare, integrates evidence-based practices from mindfulness-based interventions and cognitive-behavioral relapse prevention (RP) approaches. Objective To evaluate the long-term efficacy of MBRP in reducing relapse compared with RP and treatment as usual (TAU [12-step programming and psychoeducation]) during a 12-month follow-up period. Design, Setting, and Participants Between October 2009 and July 2012, a total of 286 eligible individuals who successfully completed initial treatment for substance use disorders at a private, nonprofit treatment facility were randomized to MBRP, RP, or TAU aftercare and monitored for 12 months. Participants medically cleared for continuing care were aged 18 to 70 years; 71.5% were male and 42.1% were of ethnic/racial minority. Interventions Participants were randomly assigned to 8 weekly group sessions of MBRP, cognitive-behavioral RP, or TAU. Main Outcomes and Measures Primary outcomes included relapse to drug use and heavy drinking as well as frequency of substance use in the past 90 days. Variables were assessed at baseline and at 3-, 6-, and 12-month follow-up points. Measures used included self-report of relapse and urinalysis drug and alcohol screenings. Results Compared with TAU, participants assigned to MBRP and RP reported significantly lower risk of relapse to substance use and heavy drinking and, among those who used substances, significantly fewer days of substance use and heavy drinking at the 6-month follow-up. Cognitive-behavioral RP showed an advantage over MBRP in time to first drug use. At the 12-month follow-up, MBRP participants reported significantly fewer days of substance use and significantly decreased heavy drinking compared with RP and TAU. Conclusions and Relevance For individuals in aftercare following initial treatment for substance use disorders, RP and MBRP, compared with TAU, produced significantly reduced relapse risk to drug use and heavy drinking. Relapse prevention delayed time to first drug use at 6-month follow-up, with MBRP and RP participants who used alcohol also reporting significantly fewer heavy drinking days compared with TAU participants. At 12-month follow-up, MBRP offered added benefit over RP and TAU in reducing drug use and heavy drinking. Targeted mindfulness practices may support long-term outcomes by strengthening the ability to monitor and skillfully cope with discomfort associated with craving or negative affect, thus supporting long-term outcomes.

Brotto, L. A. and R. Basson (2014). **"Group mindfulness-based therapy significantly improves sexual desire in women."** *Behaviour Research and Therapy* 57(0): 43-54. <http://www.sciencedirect.com/science/article/pii/S0005796714000497>

At least a third of women across reproductive ages experience low sexual desire and impaired arousal. There is increasing evidence that mindfulness, defined as non-judgmental present moment awareness, may improve women's sexual functioning. The goal of this study was to test the effectiveness of mindfulness-based therapy, either immediately or after a 3-month waiting period, in women seeking treatment for low sexual desire and arousal. Women participated in four 90-min group sessions that included mindfulness meditation, cognitive therapy, and education. A total of 117 women were assigned to either the immediate treatment (n = 68, mean age 40.8 yrs) or delayed treatment (n = 49, mean age 42.2 yrs) group, in which women had two pre-treatment baseline assessments followed by treatment. A total of 95 women completed assessments through to the 6-month follow-up period. Compared to the delayed treatment control group, treatment significantly improved sexual desire, sexual arousal, lubrication, sexual satisfaction, and overall sexual functioning. Sex-related distress significantly decreased in both conditions, regardless of treatment, as did orgasmic difficulties and depressive symptoms. Increases in mindfulness and a reduction in depressive symptoms predicted improvements in sexual desire. Mindfulness-based group therapy significantly improved sexual desire and other indices of sexual response, and should be considered in the treatment of women's sexual dysfunction.

Catarino, F., P. Gilbert, et al. (2014). **"Compassion motivations: Distinguishing submissive compassion from genuine compassion and its association with shame, submissive behavior, depression, anxiety and stress."** *Journal of Social and Clinical Psychology* 33(5): 399-412. <http://dx.doi.org/10.1521/jscp.2014.33.5.399>

Recent research has suggested that being compassionate and helpful to others is linked to well-being. However, people can pursue compassionate motives for different reasons, one of which may be to be liked or valued. Evolutionary theory suggests this form of helping may be related to submissive appeasing behavior and therefore could be negatively associated with well-being. To explore this possibility we developed a new scale called the submissive compassion scale and compared it to

other established submissive and shame-based scales, along with measures of depression, anxiety and stress in a group of 192 students. As predicted, a submissive form of compassion (being caring in order to be liked) was associated with submissive behavior, shame-based caring, ego-goals and depression, anxiety, and stress. In contrast, compassionate goals and compassion for others were not. As research on compassion develops, new ways of understanding the complex and mixed motivations that can lie behind compassion are required. The desire to be helpful, kind, and compassionate, when it arises from fears of rejection and desires for acceptance, needs to be explored.

Dahl, H. S., J. I. Rossberg, et al. (2014). **"Long-term effects of analysis of the patient-therapist relationship in the context of patients' personality pathology and therapists' parental feelings."** *J Consult Clin Psychol* 82(3): 460-471. <http://www.ncbi.nlm.nih.gov/pubmed/24660675>

OBJECTIVE: Analysis of the patient-therapist relationship (relationship work) is considered a core active ingredient in dynamic psychotherapy. However, there are contradictory findings as for whom and under what circumstances these interventions are beneficial. This study investigates long-term effects of relationship work in the context of patients' level of personality pathology and therapists' self-reported parental feelings. METHOD: One hundred outpatients seeking psychotherapy for depression, anxiety, and personality disorders were randomly assigned to weekly dynamic psychotherapy, either with or without relationship work, for 1 year. Personality pathology was evaluated before treatment as the sum of fulfilled personality disorder criteria items on the Structured Clinical Interview for DSM-III-R Personality Disorders. Therapist feelings were assessed using the Feeling Word Checklist-58. The outcome variables were the Psychodynamic Functioning Scales and Inventory of Interpersonal Problems, measured at pretreatment, midtreatment, posttreatment, 1 year, and 3 years after treatment termination. RESULTS: A significant interaction of treatment group (relationship work vs. no relationship work) by personality pathology by parental therapist feelings was present, indicating that parental feelings were differentially associated with long-term effects of relationship work, depending on the level of personality pathology. In the context of low parental feelings, relationship work was positive for all patients. However, when parental feelings were stronger, the specific effects of such interventions were even more positive for patients with high levels of personality pathology, but negative for patients with low levels of personality pathology. CONCLUSION: The interaction of parental therapist feelings and patients' personality pathology was strongly associated with the long-term specific effects of analysis of the patient-therapist relationship.

Davis, J. M., A. R. Manley, et al. (2014). **"Randomized trial comparing mindfulness training for smokers to a matched control."** *Journal of Substance Abuse Treatment* 47(3): 213-221. <http://www.sciencedirect.com/science/article/pii/S0740547214000804>

Smoking continues to take an enormous toll on society, and although most smokers would like to quit, most are unsuccessful using existing therapies. These findings call on researchers to develop and test therapies that provide higher rates of long-term smoking abstinence. We report results of a randomized controlled trial comparing a novel smoking cessation treatment using mindfulness training to a matched control based on the American Lung Association's Freedom From Smoking program. Data were collected on 175 low socioeconomic status smokers in 2011-2012 in a medium sized midwestern city. A significant difference was not found in the primary outcome; intent-to-treat biochemically confirmed 6-month smoking abstinence rates were mindfulness = 25.0%, control = 17.9% ($p = 0.35$). Differences favoring the mindfulness condition were found on measures of urges and changes in mindfulness, perceived stress, and experiential avoidance. While no significant differences were found in quit rates, the mindfulness intervention resulted in positive outcomes.

Gecht, J., R. Kessel, et al. (2014). **"A mediation model of mindfulness and decentering: Sequential psychological constructs or one and the same?"** *BMC Psychology* 2(1): 18. <http://www.biomedcentral.com/2050-7283/2/18>

(Free full text) BACKGROUND: Mindfulness and decentering are closely related processes both assumed to promote well-being. While some researchers claim that mindfulness and decentering can be clearly differentiated others suggest to use these concepts interchangeably. The precise relation between mindfulness and decentering remains unclear and therefore the present study aims to determine the relation between mindfulness and decentering. METHODS: In a structural equation modeling framework, a mediation model was tested among a sample group of 495 university students (average age 20.8 years, 30.3% female). RESULTS: The identified model shows an acceptable fit to the data and illustrates the role of decentering as a mediator of the relationship between mindfulness and depressive symptoms by complementary mediation and indirect-only mediation. CONCLUSION: The present results cannot sustain previous research, which converted mindfulness and decentering into one single variable. Rather the data suggests to treat mindfulness and decentering as two separable concepts and to regard decentering as an important working mechanism of mindfulness.

Goodwin, G. P., J. Piazza, et al. (2014). **"Moral character predominates in person perception and evaluation."** *J Pers Soc Psychol* 106(1): 148-168. <http://www.ncbi.nlm.nih.gov/pubmed/24274087>

What sorts of trait information do people most care about when forming impressions of others? Recent research in social cognition suggests that "warmth," broadly construed, should be of prime importance in impression formation. Yet, some prior research suggests that information about others' specifically moral traits--their moral "character"--may be a primary dimension. Although warmth and character have sometimes been conceived of as interchangeable, we argue that they are separable, and that across a wide variety of contexts, character is usually more important than warmth in impression formation. We first showed that moral character and social warmth traits are indeed separable (Studies 1 and 2). Further studies that used correlational and experimental methods showed that, as predicted, in most contexts, moral character information is more important in impression formation than is warmth information (Studies 2-6). Character information was also more important than warmth information with respect to judgments of traits' perceived fundamentalness to identity, their uniquely human quality, their context-independence, and their controllability (Study 2). Finally, Study 7 used an archival method to show that moral character information appears more prominently than warmth information in obituaries, and more strongly determines the impressions people form of the individuals described in those obituaries. We discuss implications for current theories of person perception and social cognition.

Goyal, M., S. Singh, et al. (2014). **"Meditation programs for psychological stress and well-being: A systematic review and meta-analysis."** *JAMA Internal Medicine* 174(3): 357-368. <http://dx.doi.org/10.1001/jamainternmed.2013.13018>

Importance Many people meditate to reduce psychological stress and stress-related health problems. To counsel people appropriately, clinicians need to know what the evidence says about the health benefits of meditation. Objective To determine the efficacy of meditation programs in improving stress-related outcomes (anxiety, depression, stress/distress, positive mood, mental health-related quality of life, attention, substance use, eating habits, sleep, pain, and weight) in diverse adult clinical populations. Evidence Review We identified randomized clinical trials with active controls for placebo effects through November 2012 from MEDLINE, PsycINFO, EMBASE, PsycArticles, Scopus, CINAHL, AMED, the Cochrane Library, and hand searches. Two independent reviewers screened citations and extracted data. We graded the strength of evidence using 4 domains (risk of bias, precision, directness, and consistency) and determined the magnitude and direction of effect by

calculating the relative difference between groups in change from baseline. When possible, we conducted meta-analyses using standardized mean differences to obtain aggregate estimates of effect size with 95% confidence intervals. Findings After reviewing 18 753 citations, we included 47 trials with 3515 participants. Mindfulness meditation programs had moderate evidence of improved anxiety (effect size, 0.38 [95% CI, 0.12-0.64] at 8 weeks and 0.22 [0.02-0.43] at 3-6 months), depression (0.30 [0.00-0.59] at 8 weeks and 0.23 [0.05-0.42] at 3-6 months), and pain (0.33 [0.03- 0.62]) and low evidence of improved stress/distress and mental health-related quality of life. We found low evidence of no effect or insufficient evidence of any effect of meditation programs on positive mood, attention, substance use, eating habits, sleep, and weight. We found no evidence that meditation programs were better than any active treatment (ie, drugs, exercise, and other behavioral therapies). Conclusions and Relevance Clinicians should be aware that meditation programs can result in small to moderate reductions of multiple negative dimensions of psychological stress. Thus, clinicians should be prepared to talk with their patients about the role that a meditation program could have in addressing psychological stress. Stronger study designs are needed to determine the effects of meditation programs in improving the positive dimensions of mental health and stress-related behavior.

Hawley, L., D. Schwartz, et al. (2014). **"Mindfulness practice, rumination and clinical outcome in mindfulness-based treatment."** *Cognitive Therapy and Research* 38(1): 1-9. <http://dx.doi.org/10.1007/s10608-013-9586-4>

Mindfulness-based cognitive therapy (MBCT) and mindfulness-based stress reduction (MBSR) are particularly effective treatment approaches in terms of alleviating depressive symptoms and preventing relapse once remission has been achieved. Although engaging in mindfulness practice is an essential element of both treatments; it is unclear whether informal or formal practices differentially impact on symptom alleviation. The current study utilizes a correlational design to examine data provided by thirty-two previously depressed, remitted outpatients who received either MBCT or MBSR treatment. Outpatients in the MBCT group received treatment as part of a previously published randomized efficacy trial (Segal et al. in *Arch Gen Psychiatry* 67:1256-1264, 2010), while those in the MBSR group received treatment as part of a separate, unpublished randomized clinical trial. Throughout treatment, clients reported on their use of formal and informal mindfulness practices. Results indicate that engaging in formal (but not informal) mindfulness practice was associated with decreased rumination, which was associated with symptom alleviation.

Jazaieri, H., K. McGonigal, et al. (2014). **"A randomized controlled trial of compassion cultivation training: Effects on mindfulness, affect, and emotion regulation."** *Motivation and Emotion* 38(1): 23-35. <http://dx.doi.org/10.1007/s11031-013-9368-z>

Compassion is a positive orientation towards suffering that may be enhanced through compassion training and is thought to influence psychological functioning. However, the effects of compassion training on mindfulness, affect, and emotion regulation are not known. We conducted a randomized controlled trial in which 100 adults from the community were randomly assigned to either a 9-week compassion cultivation training (CCT) or a waitlist (WL) control condition. Participants completed self-report inventories that measured mindfulness, positive and negative affect, and emotion regulation. Compared to WL, CCT resulted in increased mindfulness and happiness, as well as decreased worry and emotional suppression. Within CCT, the amount of formal meditation practiced was related to reductions in worry and emotional suppression. These findings suggest that compassion cultivation training effects cognitive and emotion factors that support psychological flexible and adaptive functioning.

Ly, K. H., A. Trüschel, et al. (2014). **"Behavioural activation versus mindfulness-based guided self-help treatment administered through a smartphone application: A randomised controlled trial."** *BMJ Open* 4(1). <http://bmjopen.bmj.com/content/4/1/e003440.abstract>

(Available in free full text) Objectives Evaluating and comparing the effectiveness of two smartphone-delivered treatments: one based on behavioural activation (BA) and other on mindfulness. Design Parallel randomised controlled, open, trial. Participants were allocated using an online randomisation tool, handled by an independent person who was separate from the staff conducting the study. Setting General community, with recruitment nationally through mass media and advertisements. Participants 40 participants diagnosed with major depressive disorder received a BA treatment, and 41 participants received a mindfulness treatment. 9 participants were lost at the post-treatment. Intervention BA: An 8-week long behaviour programme administered via a smartphone application. Mindfulness: An 8-week long mindfulness programme, administered via a smartphone application. Main outcome measures The Beck Depression Inventory-II (BDI-II) and the nine-item Patient Health Questionnaire Depression Scale (PHQ-9). Results 81 participants were randomised (mean age 36.0 years (SD=10.8)) and analysed. Results showed no significant interaction effects of group and time on any of the outcome measures either from pretreatment to post-treatment or from pretreatment to the 6-month follow-up. Subgroup analyses showed that the BA treatment was more effective than the mindfulness treatment among participants with higher initial severity of depression from pretreatment to the 6-month follow-up (PHQ-9: $F(1, 362.1)=5.2, p<0.05$). In contrast, the mindfulness treatment worked better than the BA treatment among participants with lower initial severity from pretreatment to the 6-month follow-up (PHQ-9: $F(1, 69.3)=7.7, p<0.01$); BDI-II: ($F(1, 53.60)=6.25, p<0.05$). Conclusions The two interventions did not differ significantly from one another. For participants with higher severity of depression, the treatment based on BA was superior to the treatment based on mindfulness. For participants with lower initial severity, the treatment based on mindfulness worked significantly better than the treatment based on BA.

Moll, J., J. H. Weingartner, et al. (2014). **"Voluntary enhancement of neural signatures of affiliative emotion using fMRI neurofeedback."** *PLoS ONE* 9(5): e97343. <http://dx.doi.org/10.1371/journal.pone.0097343>

(Free full text available) In Ridley Scott's film "Blade Runner", empathy-detection devices are employed to measure affiliative emotions. Despite recent neurocomputational advances, it is unknown whether brain signatures of affiliative emotions, such as tenderness/affection, can be decoded and voluntarily modulated. Here, we employed multivariate voxel pattern analysis and real-time fMRI to address this question. We found that participants were able to use visual feedback based on decoded fMRI patterns as a neurofeedback signal to increase brain activation characteristic of tenderness/affection relative to pride, an equally complex control emotion. Such improvement was not observed in a control group performing the same fMRI task without neurofeedback. Furthermore, the neurofeedback-driven enhancement of tenderness/affection-related distributed patterns was associated with local fMRI responses in the septohypothalamic area and frontopolar cortex, regions previously implicated in affiliative emotion. This demonstrates that humans can voluntarily enhance brain signatures of tenderness/affection, unlocking new possibilities for promoting prosocial emotions and countering antisocial behavior.

Rajguru, P., M. J. Kolber, et al. (2014). **"Use of mindfulness meditation in the management of chronic pain: A systematic review of randomized controlled trials."** *American Journal of Lifestyle Medicine*. <http://ajl.sagepub.com/content/early/2014/02/20/1559827614522580.abstract>

Background. Chronic pain is a major health condition that has significant financial and lifestyle implications. Due to the complex etiologies of pain, it is difficult to find treatment modalities that would be universally applicable to the general

population presenting for care. Mindfulness meditation is a complimentary treatment modality that has some preliminary, inconclusive evidence in support of its benefit on patients with chronic pain. Objectives. The purpose of this article is to systematically review the current literature for randomized controlled trials that assess the outcomes of mindfulness as an intervention for individuals with chronic pain. Methods. An electronic database search was performed for studies investigating the efficacy of mindfulness in treatment for chronic pain. The studies included were randomized controlled trials, published in English, from a peer-reviewed journal that identified mindfulness as the primary treatment focus for chronic pain in at least one group, and included participants with at least a 12-week history of symptoms. Results. The database search revealed 283 articles, of which 6 met the inclusion criteria. Conclusion. Mindfulness meditation appears to have minimal or statistically insignificant effects on chronic pain according to the current data. However, the effects of mindfulness on mental health scores are significant and may be an area for future trials to target. Well-conducted research is necessary before the effects of mindfulness on chronic pain can be definitively determined.

Singleton, O., B. K. Holzel, et al. (2014). **"Change in brainstem gray matter concentration following a mindfulness-based intervention is correlated with improvement in psychological well-being."** *Front Hum Neurosci* 8: 33. <http://journal.frontiersin.org/Journal/10.3389/fnhum.2014.00033/full>

(Available in free full text) Individuals can improve their levels of psychological well-being (PWB) through utilization of psychological interventions, including the practice of mindfulness meditation, which is defined as the non-judgmental awareness of experiences in the present moment. We recently reported that an 8-week-mindfulness-based stress reduction (MBSR) course lead to increases in gray matter concentration in several brain areas, as detected with voxel-based morphometry of magnetization prepared rapid acquisition gradient echo MRI scans, including the pons/raphe/locus coeruleus area of the brainstem. Given the role of the pons and raphe in mood and arousal, we hypothesized that changes in this region might underlie changes in well-being. A subset of 14 healthy individuals from a previously published data set completed anatomical MRI and filled out the PWB scale before and after MBSR participation. PWB change was used as the predictive regressor for changes in gray matter density within those brain regions that had previously shown pre- to post-MBSR changes. Results showed that scores on five PWB subscales as well as the PWB total score increased significantly over the MBSR course. The change was positively correlated with gray matter concentration increases in two symmetrically bilateral clusters in the brainstem. Those clusters appeared to contain the area of the pontine tegmentum, locus coeruleus, nucleus raphe pontis, and the sensory trigeminal nucleus. No clusters were negatively correlated with the change in PWB. This preliminary study suggests a neural correlate of enhanced PWB. The identified brain areas include the sites of synthesis and release of the neurotransmitters, norepinephrine and serotonin, which are involved in the modulation of arousal and mood, and have been related to a variety of affective functions as well as associated clinical dysfunctions.

Soler, J., A. Cebolla, et al. (2014). **"Relationship between meditative practice and self-reported mindfulness: The MINDSENS composite index."** *PLoS ONE* 9(1): e86622. <http://dx.doi.org/10.1371/journal.pone.0086622>

(Available in free full text) Mindfulness has been described as an inherent human capability that can be learned and trained, and its improvement has been associated with better health outcomes in both medicine and psychology. Although the role of practice is central to most mindfulness programs, practice-related improvements in mindfulness skills is not consistently reported and little is known about how the characteristics of meditative practice affect different components of mindfulness. The present study explores the role of practice parameters on self-reported mindfulness skills. A total of 670 voluntary participants with and without previous meditation experience ($n = 384$ and $n = 286$, respectively) responded to an internet-based survey on various aspects of their meditative practice (type of meditation, length of session, frequency, and lifetime practice). Participants also completed the Five Facets Mindfulness Questionnaire (FFMQ), and the Experiences Questionnaire (EQ). The group with meditation experience obtained significantly higher scores on all facets of FFMQ and EQ questionnaires compared to the group without experience. However different effect sizes were observed, with stronger effects for the Observing and Non-Reactivity facets of the FFMQ, moderate effects for Decentering in EQ, and a weak effect for Non-judging, Describing, and Acting with awareness on the FFMQ. Our results indicate that not all practice variables are equally relevant in terms of developing mindfulness skills. Frequency and lifetime practice--but not session length or meditation type--were associated with higher mindfulness skills. Given that these 6 mindfulness aspects show variable sensitivity to practice, we created a composite index (MINDSENS) consisting of those items from FFMQ and EQ that showed the strongest response to practice. The MINDSENS index was able to correctly discriminate daily meditators from non-meditators in 82.3% of cases. These findings may contribute to the understanding of the development of mindfulness skills and support trainers and researchers in improving mindfulness-oriented practices and programs.

Wade, N. G., W. T. Hoyt, et al. (2014). **"Efficacy of psychotherapeutic interventions to promote forgiveness: A meta-analysis."** *J Consult Clin Psychol* 82(1): 154-170. <http://www.ncbi.nlm.nih.gov/pubmed/24364794>

OBJECTIVE: This meta-analysis addressed the efficacy of psychotherapeutic interventions to help people forgive others and to examine moderators of treatment effects. METHOD: Eligible studies reported quantitative data on forgiveness of a specific hurt following treatment by a professional with an intervention designed explicitly to promote forgiveness. Random effects meta-analyses were conducted using $k = 53$ posttreatment effect sizes ($N = 2,323$) and $k = 41$ follow-up effect sizes ($N = 1,716$) from a total of 54 published and unpublished research reports. RESULTS: Participants receiving explicit forgiveness treatments reported significantly greater forgiveness than participants not receiving treatment ($\Delta + = 0.56 [0.43, 0.68]$) and participants, receiving alternative treatments ($\Delta + = 0.45 [0.21, 0.69]$). Also, forgiveness treatments resulted in greater changes in depression, anxiety, and hope than no-treatment conditions. Moderators of treatment efficacy included treatment dosage, offense severity, treatment model, and treatment modality. Multimoderator analyses indicated that treatment dosage (i.e., longer interventions) and modality (individual > group) uniquely predicted change in forgiveness compared with no-treatment controls. Compared with alternative treatment conditions, both modality (individual > group) and offense severity were marginally predictive ($ps < .10$) of treatment effects. CONCLUSIONS: It appears that using theoretically grounded forgiveness interventions is a sound choice for helping clients to deal with past offenses and helping them achieve resolution in the form of forgiveness. Differences between treatment approaches disappeared when controlling for other significant moderators; the advantage for individual interventions was most clearly demonstrated for Enright-model interventions, as there have been no studies of individual interventions using the Worthington model.

Watson, J. C., P. L. Steckley, et al. (2014). **"The role of empathy in promoting change."** *Psychotherapy Research* 24(3): 286-298. <http://dx.doi.org/10.1080/10503307.2013.802823>

Since Rogers identified empathy as an important variable in therapy, it has been found to be a consistent predictor of client change; less clear is how this occurs. The objective in this study was to test a mediation model to determine whether clients' self-reported experience of therapists' empathy contributed to changes in their attachment styles and treatment of self, after 16 weeks of psychotherapy for depression. There was a significant direct relationship between therapists' empathy and outcome and a significant indirect effect, showing that clients' perceptions of therapists' empathy was associated with significant

improvement in attachment insecurity and significant decreases in negative self-treatment at the end of therapy as well as reductions on BDI, IIP, DAS and SCL-90-R, GSI, and increases on RSE. The findings suggest that clients' perception of their therapists as empathic is an important mechanism of change in psychotherapy that warrants further investigation.

Williams, J. M., C. Crane, et al. (2014). "**Mindfulness-based cognitive therapy for preventing relapse in recurrent depression: A randomized dismantling trial.**" *J Consult Clin Psychol* 82(2): 275-286.

<http://psycnet.apa.org/index.cfm?fa=browsePA.volumes&jcode=ccp>

(Available in free full text) OBJECTIVE: We compared mindfulness-based cognitive therapy (MBCT) with both cognitive psychological education (CPE) and treatment as usual (TAU) in preventing relapse to major depressive disorder (MDD) in people currently in remission following at least 3 previous episodes. METHOD: A randomized controlled trial in which 274 participants were allocated in the ratio 2:2:1 to MBCT plus TAU, CPE plus TAU, and TAU alone, and data were analyzed for the 255 (93%; MBCT = 99, CPE = 103, TAU = 53) retained to follow-up. MBCT was delivered in accordance with its published manual, modified to address suicidal cognitions; CPE was modeled on MBCT, but without training in meditation. Both treatments were delivered through 8 weekly classes. RESULTS: Allocated treatment had no significant effect on risk of relapse to MDD over 12 months follow-up, hazard ratio for MBCT vs. CPE = 0.88, 95% CI [0.58, 1.35]; for MBCT vs. TAU = 0.69, 95% CI [0.42, 1.12]. However, severity of childhood trauma affected relapse, hazard ratio for increase of 1 standard deviation = 1.26 (95% CI [1.05, 1.50]), and significantly interacted with allocated treatment. Among participants above median severity, the hazard ratio was 0.61, 95% CI [0.34, 1.09], for MBCT vs. CPE, and 0.43, 95% CI [0.22, 0.87], for MBCT vs. TAU. For those below median severity, there were no such differences between treatment groups. CONCLUSION: MBCT provided significant protection against relapse for participants with increased vulnerability due to history of childhood trauma, but showed no significant advantage in comparison to an active control treatment and usual care over the whole group of patients with recurrent depression.

Zoogman, S., S. Goldberg, et al. (2014). "**Mindfulness interventions with youth: A meta-analysis.**" *Mindfulness*: 1-13.

<http://dx.doi.org/10.1007/s12671-013-0260-4>

Mindfulness meditation is a well-validated intervention for symptoms of depression and anxiety disorders in adults, with meta-analyses showing moderate effect sizes. This study marks the first published meta-analysis of the burgeoning literature on mindfulness meditation with youth (conducted between 2004 and 2011) and identifies specific outcomes and sub-populations for whom mindfulness may be particularly helpful. Inclusion criteria were peer-reviewed journal articles published in English, study participants under 18 years of age, and a description in the methods section of mindfulness as the chief component of an intervention. A systematic search was conducted, of which upon review, 20 articles met inclusion criteria. Mindfulness interventions with youth overall were found to be helpful and not to carry iatrogenic harm, with the primary omnibus effect size (del) in the small to moderate range (0.23, $p < .0001$), indicating the superiority of mindfulness treatments over active control comparison conditions. A significantly larger effect size was found on psychological symptoms compared to other dependent variable types (0.37 vs. 0.21, $p = .028$), and for studies drawn from clinical samples compared to non-clinical sample (0.50 vs. 0.20, $p = .024$). Mindfulness appears to be a promising intervention modality for youth. Although to date the majority of studies on mindfulness with youth engage generally healthy participants recruited from schools, the findings of this meta-analysis suggest that future research might focus on youth in clinical settings and target symptoms of psychopathology.