

36 mindfulness & compassion relevant abstracts: august '16 newsletter

(Lamy, Fischer-Lokou et al. 2015; Pereira 2015; Bajaj and Pande 2016; Bayley-Veloso and Salmon 2016; Bravo, Boothe et al. 2016; Campos, Cebolla et al. 2016; Charles-Sire, Stefan et al. 2016; Fava, Memisoglu et al. 2016; Gershoff and Grogan-Kaylor 2016; Goldin, Morrison et al. 2016; Hanley 2016; Lamy, Gueguen et al. 2016; Lebuda, Zabelina et al. 2016; Lefevor and Fowers 2016; Luong, Wrzus et al. 2016; Mallya and Fiocco 2016; Mischkowski, Crocker et al. 2016; Mithoefer, Grob et al. 2016; Mongrain, Komeylian et al. 2016; Nelson, Layous et al. 2016; Nummenmaa, Tuominen et al. 2016; Okonofua, Paunesku et al. 2016; Pepping and Duvenage 2016; Peters, Eisenlohr-Moul et al. 2016; Petrocchi and Ottaviani 2016; Robinson, Mayer et al. 2016; Ruberton, Huynh et al. 2016; Seli, Risko et al. 2016; Short, Mazmanian et al. 2016; Sobol-Kwapinska, Jankowski et al. 2016; Stell and Farsides 2016; Stolarski, Vowinckel et al. 2016; Sulemana 2016; Trompeter, de Kleine et al. 2016; Van Cappellen, Toth-Gauthier et al. 2016; Weinstein, Launay et al. 2016)

Bajaj, B. and N. Pande (2016). **"Mediating role of resilience in the impact of mindfulness on life satisfaction and affect as indices of subjective well-being."** *Personality and Individual Differences* 93: 63-67.

<http://www.sciencedirect.com/science/article/pii/S0191886915005784>

Recent research has established the effect of mindfulness on subjective well-being. In this present study we attempt to extend the previous literature by investigating the potential mediating role of resilience in the impact of mindfulness on life satisfaction and affect as indices of subjective well-being. The Mindful Attention Awareness Scale (MAAS), Connor-Davidson Resilience Scale (CD-RISC), the Satisfaction with Life Scale (SWLS) and Positive and Negative Affect Schedule (PANAS) were administered to 327 undergraduate university students in India. Structural equation modeling (SEM) results showed that resilience partially mediated the relationship between mindfulness and life satisfaction and affect components. The findings corroborate an important role of resilience in mindfulness exerting its beneficial effects. This study makes a contribution to the potential mechanism of the association between mindfulness and subjective well-being.

Bayley-Veloso, R. and P. G. Salmon (2016). **"Yoga in clinical practice."** *Mindfulness* 7(2): 308-319.

<http://dx.doi.org/10.1007/s12671-015-0449-9>

As the popularity of yoga has increased in mainstream society, its role as a form of complementary healthcare in clinical settings continues to grow as well. However, until recently, the popularity of yoga as a cultural phenomenon has not been matched by a commensurate increase in the rigor of research methods designed to assess its effectiveness in healthcare settings. Because of yoga's growing popularity, it is important for clinicians to have an empirically based working knowledge of its potential benefits and limitations. This paper reviews 52 clinical research studies of yoga published since 2011, limiting attention exclusively to randomized controlled trials in the interest of both rigor and economy of space. Promising trends and persistent limitations in the literature are explored in depth. The majority of the studies reported positive outcomes in the yoga intervention groups, but further research is needed to validate yoga as an effective intervention for various populations.

Bravo, A. J., L. G. Boothe, et al. (2016). **"Getting personal with mindfulness: A latent profile analysis of mindfulness and psychological outcomes."** *Mindfulness* 7(2): 420-432. <http://dx.doi.org/10.1007/s12671-015-0459-7>

Variable-centered analyses demonstrate that most facets of mindfulness are associated with improved psychological well-being. Person-centered analyses provide the ability to identify distinct subpopulations defined by individuals' full response profiles on mindfulness facets. Previous research has used latent profile analysis (LPA) to distinguish four subgroups of college students based on five facets of mindfulness: high mindfulness group, low mindfulness group, judgmentally observing group, and non-judgmentally aware group. On emotional outcomes, they found the judgmentally observing group had the most maladaptive emotional outcomes followed by the low mindfulness group. However, they did not examine experience with mindfulness meditation, other mindfulness-related constructs, or psychological well-being. In a sample of 688 college students (481 non-meditators, 200 meditators), we used LPA to identify distinct subgroups defined by their scores on the Five Facet Mindfulness Questionnaire (FFMQ). Using the Lo-Mendell-Rubin Likelihood Ratio Test, we found that a 4-class solution fits optimally for the entire sample as well as subsamples of meditation-naïve and meditation-experienced participants. We substantially replicated previous findings in all samples with regard to emotional outcomes. Further, the high mindfulness group demonstrated the highest levels of psychological well-being, decentering, self-regulation, and psychological flexibility. Overall, our results demonstrate the utility of person-centered analyses to examine mindfulness in unique ways.

Campos, D., A. Cebolla, et al. (2016). **"Meditation and happiness: Mindfulness and self-compassion may mediate the meditation-happiness relationship."** *Personality and Individual Differences* 93: 80-85.

<http://www.sciencedirect.com/science/article/pii/S0191886915005450>

Mindfulness and self-compassion are emerging as crucial constructs in mental health research. Recent studies have shown that both mindfulness and self-compassion skills may play important roles in well-being and positive emotions associated with mindfulness training. Studies are needed to explain this relationship and to determine what facets may be correlating and mediating the meditation-happiness relationship. The aim of this study was to explore the meditation-happiness relationship and examine which mindfulness and self-compassion facets are better predictors of happiness. A total of 365 participants completed an assessment protocol composed of: the Five Facets of Mindfulness Questionnaire (FFMQ), the Self-Compassion Scale-short form (SCS-SF), and the Pemberton Happiness Index (PHI). Hierarchical regression analysis showed that two FFMQ facets (Observing and Awareness) and two SCS components (Self-kindness and Common humanity) were significant predictors of happiness. Mediation results revealed a significant total indirect effect of Observing, Awareness, Self-kindness and Common humanity in the meditation frequency-happiness relationship. Significant indirect effects were found for observing, self-kindness and common humanity. The results supported the model of mindfulness and self-compassion facets as partial mediators of the meditation-happiness relationship. Findings are in line with other studies and provide evidence about the influence of mindfulness and self-compassion on happiness.

Charles-Sire, V., J. Stefan, et al. (2016). **"Single exposure to the word "loving" and implicit helping behavior."** *Social Influence* 11(1): 1-6. <http://www.tandfonline.com/doi/abs/10.1080/15534510.2015.1121917?src=recsys>

(Available in free full text) Recent studies have reported that exposure to appeals for help containing the word "Love" increased donations. In this study, the effect of exposure to the single word "Loving" was examined on spontaneous helping behavior. Participants in the parking lots of several supermarkets saw a male or a female confederate who was having difficulty loading a large heavy carton into a car. The confederate wore a T-shirt with a single word printed on the back: "Loving,"

"Helping," or no word. It was reported that more participants spontaneously offered to help the confederate when exposed to the word "Loving." The importance of this word and further concepts are used to explain these results.

Fava, M., A. Memisoglu, et al. (2016). **"Opioid modulation with buprenorphine/samidorphan as adjunctive treatment for inadequate response to antidepressants: A randomized double-blind placebo-controlled trial."** *American Journal of Psychiatry* 173(5): 499-508. <http://ajp.psychiatryonline.org/doi/abs/10.1176/appi.ajp.2015.15070921>

Objective: Major depressive disorder has been associated with dysregulation of the endogenous opioid system. The authors sought to determine whether opioid modulation achieved through administration of ALKS 5461, a combination of a μ - and κ -opioid partial agonist, buprenorphine, and a μ -opioid antagonist, samidorphan, would exhibit antidepressant activity in patients with major depression. Method: A multicenter, randomized, double-blind, placebo-controlled, two-stage sequential parallel comparison design study was conducted in adults with major depression who had an inadequate response to one or two courses of antidepressant treatment. Participants were randomly assigned to receive adjunctive treatment with 2 mg/2 mg of buprenorphine/samidorphan (the 2/2 dosage group), 8 mg/8 mg of buprenorphine/samidorphan (the 8/8 dosage group), or placebo. Antidepressant effect was measured based on change from baseline to the end of 4 weeks of treatment on the 17-item Hamilton Depression Rating Scale (HAM-D), the Montgomery-Åsberg Depression Rating Scale (MADRS), and the Clinical Global Impressions severity scale (CGI-S). Results: Compared with the placebo group, there were significantly greater improvements in the 2/2 dosage group across the three depression outcome measures (HAM-D: -2.8 , 95% CI= -5.1 , -0.6 ; MADRS: -4.9 , 95% CI= -8.2 , -1.6 ; CGI-S: -0.5 , 95% CI= -0.9 , -0.1). There was also evidence of improvement in the 8/8 dosage group, although it did not achieve statistical significance. Overall, the buprenorphine/samidorphan combinations were well tolerated, and there was no evidence of opioid withdrawal on treatment discontinuation. Conclusions: The buprenorphine/samidorphan combination is a novel and promising candidate for treatment of major depressive disorder in patients who have an inadequate response to standard antidepressants.

Gershoff, E. T. and A. Grogan-Kaylor (2016). **"Spanking and child outcomes: Old controversies and new meta-analyses."** *J Fam Psychol* 30(4): 453-469. <http://psycnet.apa.org/?fa=main.doiLanding&doi=10.1037/fam0000191>

Whether spanking is helpful or harmful to children continues to be the source of considerable debate among both researchers and the public. This article addresses 2 persistent issues, namely whether effect sizes for spanking are distinct from those for physical abuse, and whether effect sizes for spanking are robust to study design differences. Meta-analyses focused specifically on spanking were conducted on a total of 111 unique effect sizes representing 160,927 children. Thirteen of 17 mean effect sizes were significantly different from zero and all indicated a link between spanking and increased risk for detrimental child outcomes. Effect sizes did not substantially differ between spanking and physical abuse or by study design characteristics.

Goldin, P. R., A. Morrison, et al. (2016). **"Group cbt versus mbsr for social anxiety disorder: A randomized controlled trial."** *J Consult Clin Psychol* 84(5): 427-437. <http://www.ncbi.nlm.nih.gov/pubmed/26950097>

OBJECTIVE: The goal of this study was to investigate treatment outcome and mediators of cognitive-behavioral group therapy (CBGT) versus mindfulness-based stress reduction (MBSR) versus waitlist (WL) in patients with generalized social anxiety disorder (SAD). METHOD: One hundred eight unmedicated patients (55.6% female; mean age = 32.7 years, SD = 8.0; 43.5% Caucasian, 39% Asian, 9.3% Hispanic, 8.3% other) were randomized to CBGT versus MBSR versus WL and completed assessments at baseline, posttreatment/WL, and at 1-year follow-up, including the Liebowitz Social Anxiety Scale-Self-Report (primary outcome; Liebowitz, 1987) as well as measures of treatment-related processes. RESULTS: Linear mixed model analysis showed that CBGT and MBSR both produced greater improvements on most measures compared with WL. Both treatments yielded similar improvements in social anxiety symptoms, cognitive reappraisal frequency and self-efficacy, cognitive distortions, mindfulness skills, attention focusing, and rumination. There were greater decreases in subtle avoidance behaviors following CBGT than MBSR. Mediation analyses revealed that increases in reappraisal frequency, mindfulness skills, attention focusing, and attention shifting, and decreases in subtle avoidance behaviors and cognitive distortions, mediated the impact of both CBGT and MBSR on social anxiety symptoms. However, increases in reappraisal self-efficacy and decreases in avoidance behaviors mediated the impact of CBGT (vs. MBSR) on social anxiety symptoms. CONCLUSIONS: CBGT and MBSR both appear to be efficacious for SAD. However, their effects may be a result of both shared and unique changes in underlying psychological processes.

Hanley, A. W. (2016). **"The mindful personality: Associations between dispositional mindfulness and the five factor model of personality."** *Personality and Individual Differences* 91: 154-158. <http://www.sciencedirect.com/science/article/pii/S0191886915300751>

While curiosity about the correlates of mindfulness continues to grow, how mindfulness is related to personality factors remains unclear. Indeed, the relationships between dispositional mindfulness (DM) and one of the most common conceptualizations of personality, the Five Factor Model (FFM) have yielded mixed results. It may be that these mixed findings have resulted from a lack of analytic specificity. This study explored the relationship between DM and the FFM of personality, paying particular attention to the analysis of the mindfulness facets with respect to the FFM using canonical correlation analysis. The total DM score was found to be significantly correlated with each personality factor, with the strongest relationships observed between DM and neuroticism (negatively associated) as well as DM and conscientiousness (positively associated). The canonical correlation analysis provided further evidence of the relationship between DM and the FFM at a finer level of specificity. Three clusters of association emerged between the DM facets and the personality factors: 1) a self-regulation cluster, negatively associated with neuroticism and positively associated with conscientiousness, 2) a self-awareness cluster positively associated with openness, and 3) the conscientious confusion cluster, demonstrated a mixed relationship between conscientiousness and the mindful self-regulation cluster.

Lamy, L., J. Fischer-Lokou, et al. (2015). **"Places for help: Micro-level variation in helping behavior toward a stranger."** *Psychol Rep* 116(1): 242-248. <http://www.ncbi.nlm.nih.gov/pubmed/25621671>

A field experiment was conducted to explore whether certain urban places have an influence on helpfulness. Places semantically associated with the idea of love may act as primes and trigger increased helpfulness. Passersby (96 men, 96 women) happened upon a female confederate with a "leg injury" who inadvertently dropped personal items. The experiment took place in a common street or near a hospital entrance, a Catholic church, or a flower shop. Results indicated that helpfulness increased near a hospital or flower shop. These results are explained in light of automatic activation of normative behavior.

Lamy, L., N. Gueguen, et al. (2016). **"Wrong place to get help": A field experiment on luxury stores and helping behavior."** *Social Influence* 11(2): 130-139. <http://www.tandfonline.com/doi/full/10.1080/15534510.2016.1160839>

(Available in free full text) Three experiments were conducted in field settings. It was hypothesized that luxury stores may act as environmental reminders of materialism and that helpfulness would vary according to the presence or absence of such cues. Study 1 (N = 80) indicated that consumers coming out of famous brand stores displayed less helpfulness, as

compared to mere passersby. Study 2 (N = 112) showed passersby were less helpful near a luxury brand store than in an ordinary street with no shops. In Study 3 (N = 360), passersby were less helpful when walking down a street lined with highly exclusive stores, as compared to streets with ordinary stores or no stores. Results, limitations, and directions for future research are discussed. [Note: contrast this paper with this group's 2015 study showing increased helping behavior near hospitals or flower shops - but not churches].

Lebuda, I., D. L. Zabelina, et al. (2016). **"Mind full of ideas: A meta-analysis of the mindfulness-creativity link."** *Personality and Individual Differences* 93: 22-26. <http://www.sciencedirect.com/science/article/pii/S0191886915006133>

Mindfulness improves people's functioning in many areas, but its relationship with creativity is equivocal. To assess the link between mindfulness and creativity, we present a multilevel meta-analysis of 89 correlations obtained from 20 samples in studies published between 1977 and 2015 and demonstrate a statistically significant, but relatively weak correlation ($r = .22$) between these two constructs. This effect was moderated by the type of mindfulness, being significantly lower in case of the awareness aspect of mindfulness, than in the case of the open-monitoring aspect. We discuss the theoretical and practical implications of these findings.

Lefevor, G. T. and B. J. Fowers (2016). **"Traits, situational factors, and their interactions as explanations of helping behavior."** *Personality and Individual Differences* 92: 159-163. <http://www.sciencedirect.com/science/article/pii/S0191886915301239>

This study is guided by the research question, are personality traits, character traits, situational factors, and their interaction all necessary to explain helping behavior? 121 undergraduates' scores on the Agreeableness scale of the Big Five Inventory and the Kindness scale of the Values in Action Inventory were examined in conjunction with experimentally induced positive, neutral, or negative mood via false feedback on a bogus intelligence test. The number of spilled pencils participants helped retrieve in a "mishap" was the measure of helping. Kindness significantly predicted helping behavior, but neither feedback condition nor Agreeableness was significantly related to helping. Interactions between Kindness, Agreeableness, and feedback conditions were non-significant. These results highlight a stronger contribution to helping behavior from the trait of Kindness than from the trait of Agreeableness and situational factors.

Luong, G., C. Wrzus, et al. (2016). **"When bad moods may not be so bad: Valuing negative affect is associated with weakened affect-health links."** *Emotion* 16(3): 387-401. <http://www.ncbi.nlm.nih.gov/pubmed/26571077>

Bad moods are considered "bad" not only because they may be aversive experiences in and of themselves, but also because they are associated with poorer psychosocial functioning and health. We propose that people differ in their negative affect valuation (NAV; the extent to which negative affective states are valued as pleasant, useful/helpful, appropriate, and meaningful experiences) and that affect-health links are moderated by NAV. These predictions were tested in a life span sample of 365 participants ranging from 14-88 years of age using reports of momentary negative affect and physical well-being (via experience sampling) and assessments of NAV and psychosocial and physical functioning (via computer-assisted personal interviews and behavioral measures of hand grip strength). Our study demonstrated that the more individuals valued negative affect, the less pronounced (and sometimes even nonexistent) were the associations between everyday experiences of negative affect and a variety of indicators of poorer psychosocial functioning (i.e., emotional health problems, social integration) and physical health (i.e., number of health conditions, health complaints, hand grip strength, momentary physical well-being). Exploratory analyses revealed that valuing positive affect was not associated with the analogous moderating effects as NAV. These findings suggest that it may be particularly important to consider NAV in models of affect-health links.

Mallya, S. and A. J. Fiocco (2016). **"Effects of mindfulness training on cognition and well-being in healthy older adults."** *Mindfulness* 7(2): 453-465. <http://dx.doi.org/10.1007/s12671-015-0468-6>

Adults over the age of 65 years are now the fastest growing segment of the Canadian population. Although individual differences exist, aging is commonly associated with impairments in executive function and episodic memory. Previous studies have shown that mindfulness-based stress reduction (MBSR) can improve cognitive function in healthy younger adults, but no studies have yet examined this effect in older adults. The present study investigated the effectiveness of MBSR on improving executive function and episodic memory in older adult as well as its effectiveness in improving perceived stress and well-being. Ninety-seven healthy older adults were randomly assigned to either MBSR ($n = 57$) or an active control group ($n = 40$). It was hypothesized that compared with the control group, the MBSR group would display significant improvements in measures of executive function, episodic memory, mindfulness, mood, self-esteem, and quality of life. No clinically meaningful changes were found on any variable. In light of these results, the value of MBSR for this population is discussed.

Mischkowski, D., J. Crocker, et al. (2016). **"From painkiller to empathy killer: Acetaminophen (paracetamol) reduces empathy for pain."** *Soc Cogn Affect Neurosci*. <http://www.ncbi.nlm.nih.gov/pubmed/27217114>

Simulation theories of empathy hypothesize that empathizing with others' pain shares some common psychological computations with the processing of one's own pain. Support for this perspective has largely relied on functional neuroimaging evidence of an overlap between activations during the experience of physical pain and empathy for other people's pain. Here, we extend the functional overlap perspective to the neurochemical level and test whether a common physical painkiller, acetaminophen (paracetamol), can reduce empathy for another's pain. In two double-blind placebo-controlled experiments, participants rated perceived pain, personal distress and empathic concern in response to reading scenarios about another's physical or social pain, witnessing ostracism in the lab, or visualizing another study participant receiving painful noise blasts. As hypothesized, acetaminophen reduced empathy in response to others' pain. Acetaminophen also reduced the unpleasantness of noise blasts delivered to the participant, which mediated acetaminophen's effects on empathy. Together, these findings suggest that the physical painkiller acetaminophen reduces empathy for pain and provide a new perspective on the neurochemical bases of empathy. Because empathy regulates prosocial and antisocial behavior, these drug-induced reductions in empathy raise concerns about the broader social side effects of acetaminophen, which is taken by almost a quarter of adults in the United States each week.

Mithoefer, M. C., C. S. Grob, et al. (2016). **"Novel psychopharmacological therapies for psychiatric disorders: Psilocybin and mdma."** *The Lancet Psychiatry* 3(5): 481-488. <http://www.sciencedirect.com/science/article/pii/S2215036615005763>

Summary 4-phosphorloxy-N,N-dimethyltryptamine (psilocybin) and methylenedioxymethamphetamine (MDMA), best known for their illegal use as psychedelic drugs, are showing promise as therapeutics in a resurgence of clinical research during the past 10 years. Psilocybin is being tested for alcoholism, smoking cessation, and in patients with advanced cancer with anxiety. MDMA is showing encouraging results as a treatment for refractory post-traumatic stress disorder, social anxiety in autistic adults, and anxiety associated with a life-threatening illness. Both drugs are studied as adjuncts or catalysts to psychotherapy, rather than as stand-alone drug treatments. This model of drug-assisted psychotherapy is a possible alternative

to existing pharmacological and psychological treatments in psychiatry. Further research is needed to fully assess the potential of these compounds in the management of these common disorders that are difficult to treat with existing methods.

Mongrain, M., Z. Komeylian, et al. (2016). **"Happiness vs. Mindfulness exercises for individuals vulnerable to depression."** *The Journal of Positive Psychology* 11(4): 366-377. <http://dx.doi.org/10.1080/17439760.2015.1092569>

An online 'positivity' exercise involving the practice of discrete positive emotions was pitted against a mindfulness meditation exercise and an active placebo control. The effects of positivity and meditation were examined in relationship to personality variables known to entail vulnerability to depression. Participants (N = 741) were randomly assigned to the positivity, mindfulness, or control condition. They completed their exercise for three weeks and were assessed on measures of subjective well-being at baseline, post-test, and one, and two months later. Results indicated that all groups showed significant decreases in depressive symptoms from baseline to two months. The positivity exercise uniquely predicted increases in meaning, pleasure, engagement, and satisfaction in life across follow-ups. Dependent individuals responded favorably to the positivity intervention in the short run, but worsened in the long run for pleasure-related happiness. Self-criticism was associated with significantly greater gains in life satisfaction following exercise completion.

Nelson, S. K., K. Layous, et al. (2016). **"Do unto others or treat yourself? The effects of prosocial and self-focused behavior on psychological flourishing."** *Emotion*. <http://www.ncbi.nlm.nih.gov/pubmed/27100366>

When it comes to the pursuit of happiness, popular culture encourages a focus on oneself. By contrast, substantial evidence suggests that what consistently makes people happy is focusing prosocially on others. In the current study, we contrasted the mood- and well-being-boosting effects of prosocial behavior (i.e., doing acts of kindness for others or for the world) and self-oriented behavior (i.e., doing acts of kindness for oneself) in a 6-week longitudinal experiment. Across a diverse sample of participants (N = 473), we found that the 2 types of prosocial behavior led to greater increases in psychological flourishing than did self-focused and neutral behavior. In addition, we provide evidence for mechanisms explaining the relative improvements in flourishing among those prompted to do acts of kindness—namely, increases in positive emotions and decreases in negative emotions. Those assigned to engage in self-focused behavior did not report improved psychological flourishing, positive emotions, or negative emotions relative to controls. The results of this study contribute to a growing literature supporting the benefits of prosocial behavior and challenge the popular perception that focusing on oneself is an optimal strategy to boost one's mood. People striving for happiness may be tempted to treat themselves. Our results, however, suggest that they may be more successful if they opt to treat someone else instead.

Nummenmaa, L., L. Tuominen, et al. (2016). **"Social touch modulates endogenous mu-opioid system activity in humans."** *Neuroimage*. <http://www.ncbi.nlm.nih.gov/pubmed/27238727>

In non-human primates, opioid-receptor blockade increases social grooming, and the endogenous opioid system has therefore been hypothesized to support maintenance of long-term relationships in humans as well. Here we tested whether social touch modulates opioidergic activation in humans using in vivo positron emission tomography (PET). Eighteen male participants underwent two PET scans with [11C]carfentanil, a ligand specific to mu-opioid receptors (MOR). During the social touch scan, the participants lay in the scanner while their partners caressed their bodies in a non-sexual fashion. In the baseline scan, participants lay alone in the scanner. Social touch triggered pleasurable sensations and increased MOR availability in thalamus, striatum, and frontal, cingulate, and insular cortices. Modulation of activity of the opioid system by social touching might provide a neurochemical mechanism reinforcing social bonds between humans.

Okonofua, J. A., D. Paunesku, et al. (2016). **"Brief intervention to encourage empathic discipline cuts suspension rates in half among adolescents."** *Proc Natl Acad Sci U S A* 113(19): 5221-5226. <http://www.pnas.org/content/113/19/5221.abstract>

Growing suspension rates predict major negative life outcomes, including adult incarceration and unemployment. Experiment 1 tested whether teachers (n = 39) could be encouraged to adopt an empathic rather than punitive mindset about discipline-to value students' perspectives and sustain positive relationships while encouraging better behavior. Experiment 2 tested whether an empathic response to misbehavior would sustain students' (n = 302) respect for teachers and motivation to behave well in class. These hypotheses were confirmed. Finally, a randomized field experiment tested a brief, online intervention to encourage teachers to adopt an empathic mindset about discipline. Evaluated at five middle schools in three districts (Nteachers = 31; Nstudents = 1,682), this intervention halved year-long student suspension rates from 9.6% to 4.8%. It also bolstered respect the most at-risk students, previously suspended students, perceived from teachers. Teachers' mindsets about discipline directly affect the quality of teacher-student relationships and student suspensions and, moreover, can be changed through scalable intervention.

Pepping, C. A. and M. Duvenage (2016). **"The origins of individual differences in dispositional mindfulness."** *Personality and Individual Differences* 93: 130-136. <http://www.sciencedirect.com/science/article/pii/S0191886915003669>

A large and coherent body of evidence reveals that high dispositional mindfulness is a positive personal resource, yet remarkably little is known about the origins of individual differences in mindfulness. Attachment theory describes how early experiences with caregivers shape psychosocial development across the lifespan. Drawing from attachment theory, we propose that those who have received sensitive and responsive caregiving in childhood are more likely to have a secure attachment style which may, in turn, provide greater capacity for mindfulness. In an adolescent sample attending a large urban university (Study 1), there were indirect effects of parental rejection and parental warmth on mindfulness via attachment anxiety and avoidance. In Study 2 we tested the same hypotheses in a group of adolescent high school students and replicated the above pattern of results. In brief, both retrospective reports (Study 1) and current reports (Study 2) of the quality of parenting received were associated with individual differences in mindfulness via attachment processes. This research suggests that the origins of individual differences in dispositional mindfulness may have their roots in early childhood experiences.

Pereira, J.-A. (2015). **The effective practitioner: The role and contribution of therapist effects in the delivery of psychological therapies.** Department of Psychology, University of Sheffield. Doctor of Philosophy: 1-373.

Background: Variability in human performance is a naturally occurring phenomenon and applies to practitioners. Mainstream psychotherapy research has focused on treatments rather than practitioners and has viewed variability as error within the dominant paradigm of the randomised controlled trial. Aims: To investigate variability via the role of practitioner personal qualities and their association with differential patient outcomes, their contribution to effective practice, and the extent these qualities vary with patient severity. Method: A practice-based paradigm was adopted and sampled practitioners and data within a single Improving Access to Psychological Therapies (IAPT) service. The full sample comprised 42 practitioners – psychological wellbeing practitioners, counsellors, and cognitive-behaviour therapists – who completed measures of resilience, empathy, and mindfulness as well as provided qualitative accounts of their practice. A series of seven sequential studies utilised subsamples of the responses from these 42 practitioners, which were analysed prior to yoking with their patient outcome data to

determine associations with more and less effective practice. Studies comprised mixed and integrated quantitative and qualitative analyses comparing benchmarking and multilevel modelling research methods (N=37) and thematic analysis (N=6). Results: Significant variability in practitioner effectiveness was found. Practitioners' personal aspects were associated with patient outcomes and were influenced by their professional roles, level of treatment intensity provided, and their theoretical orientation. Practitioners' mindfulness and combined resilience and mindfulness were associated with better patient outcomes and this role increased as patient severity increased. In contrast, empathy did not differ between more and less effective practitioners, with more effective practitioners showing marginally lower levels of empathy. Conclusion: Findings suggest that more effective practitioners do differ from less effective practitioners in the personal aspects they bring to their professional practice. Findings have implications for practitioner training and routine practice. The findings are limited in their generalisability and may only apply to IAPT services.

Peters, J. R., T. A. Eisenlohr-Moul, et al. (2016). **"Dispositional mindfulness and rejection sensitivity: The critical role of nonjudgment."** *Personality and Individual Differences* 93: 125-129. <http://www.sciencedirect.com/science/article/pii/S0191886915004109>

The pain of rejection is a crucial component of normal social functioning; however, heightened sensitivity to rejection can be impairing in numerous ways. Mindfulness-based interventions have been effective with several populations characterized by elevated sensitivity to rejection; however, the relationship between mindfulness and rejection sensitivity has been largely unstudied. The present study examines associations between rejection sensitivity and multiple dimensions of dispositional mindfulness, with the hypothesis that a nonjudgmental orientation to inner experiences would be both associated with decreased rejection sensitivity and attenuate the impact of sensitivity to rejection on general negative affect. A cross-sectional sample of undergraduates (n = 451) completed self-report measures of rejection sensitivity, dispositional mindfulness, and trait-level negative affect. Significant zero-order correlations and independent effects were observed between most facets of dispositional mindfulness and rejection sensitivity, with nonjudging demonstrating the largest effects. As predicted, rejection sensitivity was associated with negative affectivity for people low in nonjudging ($\beta = .27, t = 5.12, p < .001$) but not for people high in nonjudging ($\beta = .06, t = .99, p = .324$). These findings provide preliminary support for mindfulness, specifically the nonjudging dimension, as a protective factor against rejection sensitivity and its effects on affect.

Petrocchi, N. and C. Ottaviani (2016). **"Mindfulness facets distinctively predict depressive symptoms after two years: The mediating role of rumination."** *Personality and Individual Differences* 93: 92-96. <http://www.sciencedirect.com/science/article/pii/S019188691500522X>

Despite promising theory and numerous intervention studies, longitudinal explorations of the protective properties of mindful disposition with respect to psychopathology are still scarce. The present study tested the theorized protective role of mindfulness facets with respect to depressive symptoms and rumination over time in a non-clinical sample (N = 41; 22 females; age = 24.4 (4.8), range = 19-40 years). The longitudinal design involved two assessment time points, with a span of almost 2 years (mean = 20.7 (2.8), range = 16-27 months). At both time points participants completed questionnaires assessing trait mindfulness (FFMQ), trait rumination (RRS), and depressive symptoms (CES-D). Results documented the prospective protective function of nonjudge (a non-evaluative stance toward thoughts and feelings) at Time 1, above and beyond the other four facets with respect to depressive symptoms and rumination at Time 2. Depressive rumination fully mediated the impact of nonjudge at Time 1 on depressive symptoms at Time 2. Findings suggest that non-judging skills play a critical role in the improved wellbeing associated with mindfulness training.

Robinson, K. J., S. Mayer, et al. (2016). **"Resisting self-compassion: Why are some people opposed to being kind to themselves?"** *Self and Identity* 15(5): 505-524

(Available in free full text) Although self-compassion is associated with positive emotions, resilience, and well-being, some people resist recommendations to treat themselves with kindness and compassion. This study investigated how people's personal values and evaluations of self-compassionate behaviors relate to their level of self-compassion. After completing measures of trait self-compassion and values, participants rated how they would view themselves after behaving in a self-compassionate and self-critical way. Overall, participants associated self-compassion with positive attributes that connote emotional well-being, yet only those who were low in trait self-compassion associated self-compassionate responding with negative attributes that involve low motivation, self-indulgence, low conscientiousness, and poor performance. Participants' endorsement of basic values was not meaningfully related to their evaluations of self-compassionate vs. self-critical behaviors or to self-compassion scores. We propose that self-compassion might operate as an instrumental value insofar as those high vs. low in self-compassion differ in their beliefs about whether self-compassion affects performance-related outcomes positively or negatively.

Ruberton, P. M., H. P. Huynh, et al. (2016). **"The relationship between physician humility, physician-patient communication, and patient health."** *Patient Educ Couns* 99(7): 1138-1145. <http://escholarship.org/uc/item/7jh0m7t1>

(Available in free full text) OBJECTIVE: Cultural portrayals of physicians suggest an unclear and even contradictory role for humility in the physician-patient relationship. Despite the social importance of humility, however, little empirical research has linked humility in physicians with patient outcomes or the characteristics of the doctor-patient visit. The present study investigated the relationship between physician humility, physician-patient communication, and patients' perceptions of their health during a planned medical visit. METHODS: Primary care physician-patient interactions (297 patients across 100 physicians) were rated for the physician's humility and the effectiveness of the physician-patient communication. Additionally, patients reported their overall health and physicians and patients reported their satisfaction with the interaction. RESULTS: Within-physician fluctuations in physician humility and self-reported patient health positively predicted one another, and mean-level differences in physician humility predicted effective physician-patient communication, even when controlling for the patient's and physician's satisfaction with the visit and the physician's frustration with the patient. CONCLUSIONS: The results suggest that humble, rather than paternalistic or arrogant, physicians are most effective at working with their patients. PRACTICE IMPLICATIONS: Interventions to improve physician humility may promote better communication between health care providers and patients, and, in turn, better patient outcomes.

Seli, P., E. F. Risko, et al. (2016). **"On the necessity of distinguishing between unintentional and intentional mind wandering."** *Psychological Science* 27(5): 685-691. <http://pss.sagepub.com/content/27/5/685.abstract>

In recent years, there has been an enormous increase in the number of studies examining mind wandering. Although participants' reports of mind wandering are often assumed to largely reflect spontaneous, unintentional thoughts, many researchers' conceptualizations of mind wandering have left open the possibility that at least some of these reports reflect deliberate, intentional thought. Critically, however, in most investigations on the topic, researchers have not separately assessed each type of mind wandering; instead, they have measured mind wandering as a unitary construct, thereby conflating intentional and unintentional types. We report the first compelling evidence that an experimental manipulation can have

qualitatively different effects on intentional and unintentional types of mind wandering. This result provides clear evidence that researchers interested in understanding mind wandering need to consider the distinction between unintentional and intentional occurrences of this phenomenon.

Short, M. M., D. Mazmanian, et al. (2016). **"Executive function and self-regulation mediate dispositional mindfulness and well-being."** *Personality and Individual Differences* 93: 97-103. <http://www.sciencedirect.com/science/article/pii/S0191886915005127>

Research indicates that mindfulness is linked to higher-order neurocognitive control processes, and the associated executive functions and self-regulation capacities needed in daily life. The current study examines the roles of executive function and self-regulation in the link between dispositional mindfulness and well-being using a multi-method, two-phase longitudinal design. Two multiple mediator models were tested in a sample of 77 undergraduate students. Self-regulation independently mediated the relationship between mindfulness and positive affect; however, both executive function and self-regulation independently mediated the relationship between mindfulness and negative affect. The mindfulness facets of acting with awareness and non-judgment were most strongly related to executive function and well-being outcomes, while describing and acting with awareness were most strongly related to self-regulation. Performance-based neurocognitive control was related to self-regulation and positive affect, and a test of inhibition/shifting was related to executive function in daily life. Thus, students who are more dispositionally mindful than their peers tend to be non-judgmental and act with awareness, rather than on automatic pilot, which may engage executive functions and self-regulation.

Sobol-Kwapinska, M., T. Jankowski, et al. (2016). **"What do we gain by adding time perspective to mindfulness? Carpe diem and mindfulness in a temporal framework."** *Personality and Individual Differences* 93: 112-117. <http://www.sciencedirect.com/science/article/pii/S0191886915005036>

Researchers studying mindfulness point to the need for studies and analyses explaining and specifying the nature of this variable as compared to other similar constructs. The aim of this article is to examine the relationship between dispositional mindfulness and the Carpe Diem time perspective (CD) and their predictive value with reference to eudaimonic well-being, namely authenticity and basic needs satisfaction. The participants were 238 Poles (138 female and 100 male, aged 15 to 65 years). We obtained results suggesting that mindfulness and CD are separate constructs that do not correlate with each other. We point out that mindfulness is mainly concerned with the form of awareness, while CD is concerned with its content. The interaction of these two variables has a particularly positive effect on the functioning that enables the satisfaction of basic psychological needs.

Stell, A. J. and T. Farsides (2016). **"Brief loving-kindness meditation reduces racial bias, mediated by positive other-regarding emotions."** *Motivation and Emotion* 40(1): 140-147. <http://dx.doi.org/10.1007/s11031-015-9514-x>

The relationship between positive emotions and implicit racial prejudice is unclear. Interventions using positive emotions to reduce racial bias have been found wanting, while other research shows that positive affect can sometimes exacerbate implicit prejudice. Nevertheless, loving-kindness meditation (LKM) has shown some promise as a method of reducing bias despite increasing a broad range of positive emotions. A randomised control trial (n = 69) showed that a short-term induction of LKM decreased automatic processing, increased controlled processing, and was sufficient to reduce implicit prejudice towards the target's racial group but not towards a group untargeted by the meditation. Furthermore, the reduction in bias was shown to be mediated by other-regarding positive emotions alongside increased control and decreased automaticity on the IAT. Non-other-regarding positive emotions conversely showed no correlation with bias. The study is the first to show that a short-term positive emotional induction can reduce racial prejudice, and aids the understanding of how positive emotions functionally differentiate in affecting bias.

Stolarski, M., J. Vowinckel, et al. (2016). **"Mind the balance, be contented: Balanced time perspective mediates the relationship between mindfulness and life satisfaction."** *Personality and Individual Differences* 93: 27-31. <http://www.sciencedirect.com/science/article/pii/S0191886915006121>

Both mindfulness and Balanced Time Perspective (BTP) are well confirmed and robust predictors of various aspects of well-being. In the present paper we argue that BTP may be considered one of the potential links between mindfulness and life satisfaction. We collected data from three samples, applying three different measures of mindfulness, as well as the Zimbardo Time Perspective Inventory and the Satisfaction with Life Scale. BTP was calculated using the Deviation from a Balanced Time Perspective index. Results have shown that BTP might mediate the relationship between mindfulness and life satisfaction. This effect was replicable across all three samples and for each of the mindfulness measures, however the causal relation between these constructs must be further examined in future studies. The results shed new light on the bases of BTP as well as mindfulness.

Sulemana, I. (2016). **"Are happier people more willing to make income sacrifices to protect the environment?"** *Social Indicators Research* 127(1): 447-467. <http://dx.doi.org/10.1007/s11205-015-0960-3>

There is considerable amount of debate about the effect of affluence on environmental concern. The empirical literature is inconclusive on this debate. Increasingly, more studies are examining individual level correlates of environmental concern. On the other hand, a large number of studies examine the correlates of happiness. An important aspect of the economics of happiness literature emphasizes the relationship between environmental quality or concern and happiness. A few scholars suggest that happiness may influence environmental concern. Yet studies on whether happiness affects environmental concern are lacking. This paper empirically investigates the effect of happiness on environmental concern in a cross-national sample. Using data for 18 countries, I find that happier people are more willing to make income sacrifices to protect the environment. This finding holds for residents of both African and developed countries.

Trompeter, H. R., E. de Kleine, et al. (2016). **"Why does positive mental health buffer against psychopathology? An exploratory study on self-compassion as a resilience mechanism and adaptive emotion regulation strategy."** *Cognitive Therapy and Research*: 1-10. <http://dx.doi.org/10.1007/s10608-016-9774-0>

(Available in free full text) Growing evidence suggests that positive mental health or wellbeing protects against psychopathology. How and why those who flourish derive these resilient outcomes is, however, unknown. This exploratory study investigated if self-compassion, as it continuously provides a friendly, accepting and situational context for negative experiences, functions as a resilience mechanism and adaptive emotion regulation strategy that protects against psychopathology for those with high levels of positive mental health. Participants from the general population (n = 349) provided measures at one time-point on positive mental health (MHC-SF), self-compassion (SCS-SF), psychopathology (HADS) and negative affect (mDES). Self-compassion significantly mediated the negative relationship between positive mental health and psychopathology. Furthermore, higher levels of self-compassion attenuated the relationship between state negative affect and psychopathology. Findings suggest that especially individuals with high levels of positive mental health possess self-compassion skills that promote

resilience against psychopathology. These might function as an adaptive emotion regulation strategy and protect against the activation of schema related to psychopathology following state negative affective experiences. Enhancing self-compassion is a promising positive intervention for clinical practice. It will not only impact psychopathology through reducing factors like rumination and self-criticism, but also improve positive mental health by enhancing factors such as kindness and positive emotions. This may reduce the future risk of psychopathology.

Van Cappellen, P., M. Toth-Gauthier, et al. (2016). **"Religion and well-being: The mediating role of positive emotions."** *Journal of Happiness Studies* 17(2): 485-505. <http://dx.doi.org/10.1007/s10902-014-9605-5>

Research has consistently shown that endorsing a religion or spirituality is to some extent related to one's well-being. Common studied explanations tap into the social and cognitive aspects of religion and spirituality. The present research aims at understanding how religiosity and spirituality exert their impact on well-being and investigates the role of a surprisingly neglected mechanism: positive emotions. Two cross-sectional studies using a quantitative approach are presented. In two different contexts (churchgoers in a European country and US university employees interested in meditation), results showed that the relation between religion (Study 1), spirituality (Study 2) and well-being is mediated by positive emotions. Distinguishing between more and less relevant positive emotions in a religious/spiritual context, it was found that the effect was mediated by self-transcendent positive emotions (awe, gratitude, love, and peace) but not by other positive emotions (amusement and pride).

Weinstein, D., J. Launay, et al. (2016). **"Group music performance causes elevated pain thresholds and social bonding in small and large groups of singers."** *Evol Hum Behav* 37(2): 152-158. <http://www.ncbi.nlm.nih.gov/pubmed/27158219>

Over our evolutionary history, humans have faced the problem of how to create and maintain social bonds in progressively larger groups compared to those of our primate ancestors. Evidence from historical and anthropological records suggests that group music-making might act as a mechanism by which this large-scale social bonding could occur. While previous research has shown effects of music making on social bonds in small group contexts, the question of whether this effect 'scales up' to larger groups is particularly important when considering the potential role of music for large-scale social bonding. The current study recruited individuals from a community choir that met in both small (n = 20 - 80) and large (a 'megachoir' combining individuals from the smaller subchoirs n = 232) group contexts. Participants gave self-report measures (via a survey) of social bonding and had pain threshold measurements taken (as a proxy for endorphin release) before and after 90 minutes of singing. Results showed that feelings of inclusion, connectivity, positive affect, and measures of endorphin release all increased across singing rehearsals and that the influence of group singing was comparable for pain thresholds in the large versus small group context. Levels of social closeness were found to be greater at pre- and post-levels for the small choir condition. However, the large choir condition experienced a greater change in social closeness as compared to the small condition. The finding that singing together fosters social closeness - even in large contexts where individuals are not known to each other - is consistent with evolutionary accounts that emphasize the role of music in social bonding, particularly in the context of creating larger cohesive groups than other primates are able to manage.