

# 48 bhma abstracts, december '12

Forty eight abstracts covering a multitude of stress, health & wellbeing related subjects including the beneficial effects of social support in guarding against PTSD, mindfulness for physical conditions, the adult outcome of childhood ADHD, the complex links between exercise & mental illness, mind-wandering & car accidents, widespread pain & PTSD, bullying, vitamin C & the common cold, and much more.

(Arnberg, Hultman et al. 2012; Benson, Scales et al. 2012; Biederman, Petty et al. 2012; Briñol, Gascó et al. 2012; Carlson 2012; Casanas, Catalan et al. 2012; Casas, Coenders et al. 2012; Chan, Gurnot et al. 2012; Dakwar, Blanco et al. 2012; Dishman, Sui et al. 2012; Ehrlich 2012; English, John et al. 2012; Galera, Orriols et al. 2012; Hauser, Glaesmer et al. 2012; Huedo-Medina, Kirsch et al. 2012; Lau, Colley et al. 2012; Layouts, Nelson et al. 2012; Legault, Al-Khindi et al. 2012; Lemay, Overall et al. 2012; Meiklejohn, Phillips et al. 2012; Moore, Derry et al. 2012; Moshkin, Litvinova et al. 2012; Nelson 2012; Nelson, Kushlev et al. 2012; Niezink, Siero et al. 2012; Oishi and Kesebir 2012; Okusaga and Postolache 2012; Paluck and Shepherd 2012; Papakostas, Cassiello et al. 2012; Papakostas, Shelton et al. 2012; Piet, Wurtzen et al. 2012; Pinniger, Brown et al. 2012; Rethorst, Sunderajan et al. 2012; Samelson, Booth et al. 2012; Shaeer and Shaeer 2012; Sheldon and Hilpert 2012; Shim and Ryan 2012; Sparenberg, Topolinski et al. 2012; Talegawkar, Bandinelli et al. 2012; Tarabulsy, Larose et al. 2012; van Dam, van der Ven et al. 2012; Verduyn, Van Mechelen et al. 2012; Vila, Kramer et al. 2012; Whitebird, Kreitzer et al. 2012; Wiley 2012; Wright, Richards et al. 2012; Fix and Fix 2013; Hemilä and Chalker 2013)

Arnberg, F. K., C. M. Hultman, et al. (2012). **"Social support moderates posttraumatic stress and general distress after disaster."** *J Trauma Stress* 25(6): 721-727. <http://www.ncbi.nlm.nih.gov/pubmed/23184348>

Social support buffers the negative impact of stressful events. Less, however, is known about the characteristics of this association in the context of disaster and findings have been discrepant regarding direct and buffering effects. This study tested whether the protective effects of social support differed across levels of exposure severity (i.e., buffered distress) and assessed whether the buffering effect differed between event-specific and general distress. Participants were 4,600 adult Swedish tourists (44% of invited; 55% women) repatriated within 3 weeks after the 2004 Indian Ocean tsunami. A survey 14 months after the disaster included the Crisis Support Scale, the Impact of Event Scale-Revised (IES-R), and the General Health Questionnaire (GHQ-12). Social support buffered the negative impact of exposure on both outcomes. The support and distress association ranged from very small in participants with low exposure to moderate in those with high exposure ( $\eta^2(p) = .004$  to  $.053$ ). The buffering effect was not found to differ between the IES-R and GHQ-12,  $F(2, 4589) = 0.87$ ,  $p = .42$ . The findings suggest that social support moderates the stressor-distress relationship after disasters. This study might help explain discrepant findings and point to refinements of postdisaster interventions.

Benson, P. L., P. C. Scales, et al. (2012). **"Is youth spiritual development a universal developmental process? An international exploration."** *Journal of Positive Psychology* 7(6): 453-470. <http://dx.doi.org/10.1080/17439760.2012.732102>

(Free full text available) This article describes a new conceptual approach to youth spiritual development, positing it as a universal aspect of positive youth development, and presents initial empirical evidence for the cross-cultural validity of this theory. Based on an international survey with 6725 youth in eight countries, it provides a global portrait of the spiritual lives of 12-25 year olds. The development and psychometric properties of core spiritual development and religious/spiritual engagement across nations and religious traditions are described. Finally, a person-centered analytic technique is used to explore profiles of the unique ways spiritual development manifests itself in the lives of young people. Results suggest that spiritual development is an active process among the majority of youth across diverse religious and cultural backgrounds, with most having spiritual development unfold without particularly strong engagement in explicitly religious or spiritual practices.

Biederman, J., C. R. Petty, et al. (2012). **"Adult outcome of attention-deficit/hyperactivity disorder: A controlled 16-year follow-up study."** *J Clin Psychiatry* 73(7): 941-950. <http://www.ncbi.nlm.nih.gov/pubmed/22901345>

OBJECTIVE: To estimate the risks for psychopathology and functional impairments in adulthood among a longitudinal sample of youth with and without attention-deficit/hyperactivity disorder (ADHD) diagnosed in childhood. METHOD: This was a case-controlled, 16-year (15-19 years) prospective follow-up study of ADHD. 140 boys with and 120 without DSM-III-R ADHD were recruited from pediatric and psychiatric settings. The main outcome measures were structured diagnostic interviews and measures of psychosocial, educational, and neuropsychological functioning. Data were collected from 1988 to 2006. RESULTS: At the 16-year follow-up, subjects with ADHD continued to significantly differ from controls in lifetime rates of antisocial, mood, anxiety, and addictive disorders, but with the exception of a higher interval prevalence of anxiety disorders (20% vs 8%;  $z = 2.32$ ,  $P = .02$ ) and smoking dependence (27% vs 11%;  $z = 2.30$ ,  $P = .02$ ), the incidence of individual disorders in the 6-year interval between the current and prior follow-up did not differ significantly from controls. At follow-up, the ADHD subjects compared with controls were significantly ( $P < .05$ ) more impaired in psychosocial, educational, and neuropsychological functioning, differences that could not be accounted for by other active psychopathology. CONCLUSIONS: These long-term prospective findings provide further evidence for the high morbidity associated with ADHD across the life cycle, stressing the importance of early recognition of this disorder for prevention and early intervention strategies. These findings also indicate that, in adulthood, ADHD confers significant risks for impairment that cannot be accounted for by other psychopathology.

Briñol, P., M. Gascó, et al. (2012). **"Treating thoughts as material objects can increase or decrease their impact on evaluation."** *Psychological Science*. <http://pss.sagepub.com/content/early/2012/11/21/0956797612449176.abstract>

In Western dualistic culture, it is assumed that thoughts cannot be treated as material objects; however, language is replete with metaphorical analogies suggesting otherwise. In the research reported here, we examined whether objectifying thoughts can influence whether the thoughts are used in subsequent evaluations. In Experiment 1, participants wrote about what they either liked or disliked about their bodies. Then, the paper on which they wrote their thoughts was either ripped up and tossed in the trash or kept and checked for errors. When participants physically discarded a representation of their thoughts, they mentally discarded them as well, using them less in forming judgments than did participants who retained a representation of their thoughts. Experiment 2 replicated this finding and also showed that people relied on their thoughts more when they physically kept them in a safe place—putting their thoughts in their pockets—than when they discarded them. A final study revealed that these effects were stronger when the action was performed physically rather than merely imagined.

Carlson, L. E. (2012). **"Mindfulness-based interventions for physical conditions: A narrative review evaluating levels of evidence."** *ISRN Psychiatry* 2012: 21. <http://dx.doi.org/10.5402/2012/651583>

(Free full text available) Research on mindfulness-based interventions (MBIs) for treating symptoms of a wide range of medical conditions has proliferated in recent decades. Mindfulness is the cultivation of nonjudgmental awareness in the present

moment. It is both a practice and a way of being in the world. Mindfulness is purposefully cultivated in a range of structured interventions, the most popular of which is mindfulness-based stress reduction (MBSR), followed by mindfulness-based cognitive therapy (MBCT). This paper begins with a discussion of the phenomenological experience of coping with a chronic and potentially life-threatening illness, followed by a theoretical discussion of the application of mindfulness in these situations. The literature evaluating MBIs within medical conditions is then comprehensively reviewed, applying a levels of evidence rating framework within each major condition. The bulk of the research looked at diagnoses of cancer, pain conditions (chronic pain, low back pain, fibromyalgia, and rheumatoid arthritis), cardiovascular disease, diabetes, human immunodeficiency virus (HIV)/acquired immune deficiency syndrome (AIDS), and irritable bowel syndrome. Most outcomes assessed are psychological in nature and show substantial benefit, although some physical and disease-related parameters have also been evaluated. The field would benefit from more adequately powered randomized controlled trials utilizing active comparison groups and assessing the moderating role of patient characteristics and program "dose" in determining outcomes.

Casanas, R., R. Catalan, et al. (2012). **"Effectiveness of a psycho-educational group program for major depression in primary care: A randomized controlled trial."** *BMC Psychiatry* 12: 230. <http://www.ncbi.nlm.nih.gov/pubmed/23249399>

(Free full text available) ABSTRACT: BACKGROUND: Studies show the effectiveness of group psychoeducation in reducing symptoms in people with depression. However, few controlled studies that have included aspects of personal care and healthy lifestyle (diet, physical exercise, sleep) together with cognitive-behavioral techniques in psychoeducation are proven to be effective. The objective of this study is to assess the effectiveness of a psychoeducational program, which includes aspects of personal care and healthy lifestyle, in patients with mild/moderate depression symptoms in Primary Care (PC). METHODS: In a randomized, controlled trial, 246 participants over 20 years old with ICD-10 major depression were recruited through nurses/general practitioners at 12 urban Primary Care Centers (PCCs) in Barcelona. The intervention group (IG) (n=119) received a group psychoeducational program (12 weekly, 1.5 h sessions led by two nurses) and the control group (CG) (n=112) received usual care. Patients were assessed at baseline and at, 3, 6 and 9 months. The main outcome measures were the BDI, EQ-5D and remission based upon the BDI. RESULTS: 231 randomized patients were included, of whom 85 had mild depression and 146 moderate depression. The analyses showed significant differences between groups in relation to remission of symptoms, especially in the mild depression group with a high rate of 57% (p=0.009) at post-treatment and 65% (p=0.006) at 9 month follow up, and only showed significant differences on the BDI at post-treatment (p=0.016; effect size Cohen's d'=.51) and at 6 and 9 month follow-up (p= 0.048; d'=.44). In the overall and moderate sample, the analyses only showed significant differences between groups on the BDI at post-treatment, p=0.02 (d'=.29) and p=0.010 (d'=.47), respectively. The psychoeducation group improved significantly on the EQ-5D at short and long-term. CONCLUSIONS: This psychoeducational intervention is a short and long-term effective treatment for patients with mild depression symptoms. It results in a high remission rate, is recommended in PC and can be carried out by nurses with previous training. In moderate patients, group psychoeducation is effective in the short-term.

Casas, F., G. Coenders, et al. (2012). **"Testing the relationship between parents' and their children's subjective well-being."** *Journal of Happiness Studies* 13(6): 1031-1051. <http://dx.doi.org/10.1007/s10902-011-9305-3>

Casas et al. (*J Happiness Stud* 9(2):197-205, 2008) found no significant relationship between paired answers given by parents and their 12-16-year-old children (N = 266) for a single-item scale on overall life satisfaction (OLS). However, a significant, but low (.19) parent-child relationship did appear for the PWI multi-item scale. Overall, children reported higher subjective well being than parents. In this article, we present the results obtained from confirmatory factor analysis (CFA), using more scales and a bigger sample (N = 1,250) of paired parents and children. The study uses three multiple-item scales: the PWI, the SWLS and the BMSLSS, and six single-item scales: the OLS, two items from Russell's scale on core affects, one on overall happiness, Fordyce's happiness item and the optional item of the BMSLSS on overall life satisfaction. Separate CFA for each of the 3 multi-item scales showed good fit statistics. In order to check comparability between parents and children, we tested equal loading and intercept constraints. The models with restricted loadings fit only for the PWI and BMSLSS, but none of the models with restricted intercepts fit. Therefore, it was only possible to estimate two factor correlations for parents and their children, both very low (.16 for the PWI, .18 for BMSLSS), and it was not possible to compare factor means. When correlating scores from the 6 single-item scales for parents and children, they were all found to be significant but very low. As regards items from the multiple-item scales for parents and children many correlations are positive and significant, although very low, but others are non significant. The means of some items were substantially higher for children than for parents. For some items, differences were minor, non-significant or even reversed. All of the results suggest that parents' well-being is very weakly related to their own children's well-being, in spite of socialization, common material welfare and genetic influences. However, one outstanding result is that in our Catalan sample, parents' well-being seems to have a greater influence on their female child's well-being than on their male child's.

Chan, W. F., C. Gurnot, et al. (2012). **"Male microchimerism in the human female brain."** *PLoS One* 7(9): e45592. <http://www.ncbi.nlm.nih.gov/pubmed/23049819>

(Free full text available) In humans, naturally acquired microchimerism has been observed in many tissues and organs. Fetal microchimerism, however, has not been investigated in the human brain. Microchimerism of fetal as well as maternal origin has recently been reported in the mouse brain. In this study, we quantified male DNA in the human female brain as a marker for microchimerism of fetal origin (i.e. acquisition of male DNA by a woman while bearing a male fetus). Targeting the Y-chromosome-specific DYS14 gene, we performed real-time quantitative PCR in autopsied brain from women without clinical or pathologic evidence of neurologic disease (n=26), or women who had Alzheimer's disease (n=33). We report that 63% of the females (37 of 59) tested harbored male microchimerism in the brain. Male microchimerism was present in multiple brain regions. Results also suggested lower prevalence (p=0.03) and concentration (p=0.06) of male microchimerism in the brains of women with Alzheimer's disease than the brains of women without neurologic disease. In conclusion, male microchimerism is frequent and widely distributed in the human female brain. (For fascinating context for this article see *The Scientific American's "Scientists discover children's cells in mothers' brains" - [http://www.scientificamerican.com/article.cfm?id=scientists-discover-childrens-cells-living-in-mothers-brain&WT.mc\\_id=SA\\_WR\\_20121205](http://www.scientificamerican.com/article.cfm?id=scientists-discover-childrens-cells-living-in-mothers-brain&WT.mc_id=SA_WR_20121205)*).

Dakwar, E., C. Blanco, et al. (2012). **"Exercise and mental illness: Results from the national epidemiologic survey on alcohol and related conditions (nesarc)."** *J Clin Psychiatry* 73(7): 960-966. <http://www.ncbi.nlm.nih.gov/pubmed/22901347>

BACKGROUND: Regular exercise is thought to be associated with low rates of mental illness, but this association has been inadequately studied. The purpose of this study was to test the hypotheses that the recommended amount of self-reported vigorous exercise would be cross-sectionally associated with reduced prevalence and incidence of various DSM-IV psychiatric disorders, as well as increased rates of remission. METHOD: Data were collected from 2001 to 2005 as part of the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC), a 2-wave face-to-face survey conducted by the National Institute on Alcohol Abuse and Alcoholism. For this study, the sample consisted of 23,505 nondisabled adults aged between 18

and 65 years. RESULTS: Individuals who engaged in vigorous exercise at Wave 2 were significantly more likely than were nonexercisers to be diagnosed with a current psychiatric disorder (adjusted odds ratio [AOR] = 1.22, 95% CI, 1.12-1.34 for the nationally recommended amount vs no exercise), significantly less likely to attain remission from a psychiatric disorder between waves (AOR = 0.77, 95% CI, 0.65-0.91), and significantly more likely to relapse or be newly diagnosed with a psychiatric disorder between waves (AOR = 1.15, 95% CI, 1.02-1.30). Alcohol dependence and bipolar II disorder were the disorders most strongly associated with exercise. CONCLUSIONS: This investigation suggests that the pursuit of vigorous exercise is associated with a vulnerability to mental illness. This surprising finding may be due to reward-related factors that influence both exercise engagement and the expression of certain psychiatric disorders. Prospective trials will be helpful in further clarifying the associations between exercise and mental illness, as the relationships between the 2 are more complex than previously believed.

Dishman, R. K., X. Sui, et al. (2012). **"Decline in cardiorespiratory fitness and odds of incident depression."** *Am J Prev Med* 43(4): 361-368. <http://www.ncbi.nlm.nih.gov/pubmed/22992353>

BACKGROUND: Studies of physical activity and incidence of physician-diagnosed depression have been limited to a single estimate of self-reported physical activity exposure, despite follow-up periods lasting many years. PURPOSE: To examine longitudinal change in cardiorespiratory fitness, an objective marker of habitual physical activity, and incident depression complaints made to a physician. METHODS: Cardiorespiratory fitness assessed at four clinic visits between 1971 and 2006, each separated by an average of 2-3 years, was used to objectively measure cumulative physical activity exposure in cohorts of 7936 men and 1261 women, aged 20-85 years, from the Aerobics Center Longitudinal Study who did not complain of depression at their first clinic visit in 1971-2003. Data were analyzed in August 2010. RESULTS: Across subsequent visits, there were 446 incident cases in men and 153 cases in women. After adjustment for age, time between visits, BMI at each visit, and fitness at Visit 1, each 1-minute decline in treadmill endurance (i.e., a decline in cardiorespiratory fitness of approximately 1 half-MET) between ages 51 and 55 years in men and ages 53 and 56 years in women, increased the odds of incident depression complaints by approximately 2% and 9.5%, respectively. The increased odds remained significant but were attenuated to 1.3% and 5.4% after further adjustment at each visit for smoking, alcohol use, chronic medical conditions, anxiety, and sleep problems. CONCLUSIONS: Maintenance of cardiorespiratory fitness during late middle age, when decline in fitness typically accelerates, helps protect against the onset of depression complaints made to a physician.

Ehrlich, C. (2012). **"Be careful what you wish for but also why you wish for it – goal-striving reasons and subjective well-being."** *Journal of Positive Psychology* 7(6): 493-503. <http://dx.doi.org/10.1080/17439760.2012.721382>

(Free full text available) Individuals' subjective well-being (SWB) when attaining their goals is moderated by the characteristics of their goals. Two significant moderators are whether goals are approach or avoidance oriented and their content. Within the goal-setting literature, these characteristics have been applied to goals as such, focussing on what it is people try to achieve. However, they can equally be applied to analyse why individuals pursue their goals. By applying the dimensions of approach and avoidance orientation as well as goal content to the analysis of goal-striving reasons, a framework has been developed encompassing the following four goal-striving reasons: goals pursuit because of pleasure, for altruistic reasons, out of necessity and for self-esteem reasons. The empirical findings (N=174) show that goal-striving reasons are significantly associated with affective SWB. Therefore goal-striving reasons provide an additional level of analysis, when analysing the relation between goals and affective SWB.

English, T., O. P. John, et al. (2012). **"Emotion regulation and peer-rated social functioning: A 4-year longitudinal study."** *Journal of Research in Personality* 46(6): 780-784.

<http://www.sciencedirect.com/science/article/pii/S0092656612001419>

Different emotion regulation strategies have been linked to distinct social outcomes, but only concurrently or in the short-term. The present research employed a 4-year longitudinal design with peer-reported measures of social functioning to examine the long-term social effects of emotion regulation. Individual differences in suppression before entering college predicted weaker social connections (e.g., less close relationships) at the end of college, whereas reappraisal predicted stronger social connections and more favorable sociometric standing (e.g., higher social status). These effects of emotion regulation remained intact even when controlling for baseline social functioning and Big Five personality traits. These findings suggest that individual differences in the use of particular emotion regulation strategies have an enduring impact, shaping the individual's social environment over time.

Fix, R. L. and S. T. Fix (2013). **"The effects of mindfulness-based treatments for aggression: A critical review."** *Aggression and Violent Behavior*(0). <http://www.sciencedirect.com/science/article/pii/S1359178912001231>

Recently, there has been significant growth in the empirical literature on mindfulness and mindfulness-based treatments (MBTs). The purpose of the current review was to critically examine and critique eleven studies evaluating MBTs for reducing aggressive behaviors. Articles were divided based on design (i.e., group design vs. single subject). This review highlighted evidence supporting the efficacy of the use of mindfulness-based treatments in individuals with aggressive behavior problems. Many of the group studies had weak designs, limiting the validity of the stated results. Results from the single-subject studies were more promising, providing strong support for the use of MBTs in reducing aggression. However, despite recent advances in the use of MBTs with individuals with aggression problems, questions remain unanswered. Finally, suggestions for future research are made to improve and identify means of evaluating the effectiveness of mindfulness-based treatments in an aggressive population.

Galera, C., L. Orriols, et al. (2012). **"Mind wandering and driving: Responsibility case-control study."** *BMJ* 345: e8105. <http://www.ncbi.nlm.nih.gov/pubmed/23241270>

OBJECTIVE: To assess the association between mind wandering (thinking unrelated to the task at hand) and the risk of being responsible for a motor vehicle crash. DESIGN: Responsibility case-control study. SETTING: Adult emergency department of a university hospital in France, April 2010 to August 2011. PARTICIPANTS: 955 drivers injured in a motor vehicle crash. MAIN OUTCOME MEASURES: Responsibility for the crash, mind wandering, external distraction, negative affect, alcohol use, psychotropic drug use, and sleep deprivation. Potential confounders were sociodemographic and crash characteristics. RESULTS: Intense mind wandering (highly disrupting/distracting content) was associated with responsibility for a traffic crash (17% (78 of 453 crashes in which the driver was thought to be responsible) v 9% (43 of 502 crashes in which the driver was not thought to be responsible); adjusted odds ratio 2.12, 95% confidence interval 1.37 to 3.28). CONCLUSIONS: Mind wandering while driving, by decoupling attention from visual and auditory perceptions, can jeopardise the ability of the driver to incorporate information from the environment, thereby threatening safety on the roads.

Hauser, W., H. Glaesmer, et al. (2012). **"Widespread pain in older Germans is associated with posttraumatic stress disorder and lifetime employment status--results of a cross-sectional survey with a representative population sample."** *Pain* 153(12): 2466-2472. <http://www.ncbi.nlm.nih.gov/pubmed/23084003>



Whether self-reported lifetime civilian and war-related potential traumatic events are associated with widespread pain (WP) and if so, whether the association is attributable to posttraumatic stress disorder (PTSD) and depression has not been studied in a representative sample of the general population. In a randomly selected sample of the German general population, persons aged 60-85 years answered validated self-rating instruments: Regional Pain Scale, trauma list of the Composite International Diagnostic Interview, Posttraumatic Diagnostic Scale, and Patient Health Questionnaire 2. Participants with WP were compared with participants with no or local or regional pain (controls). Stepwise hierarchical logistic regression analyses were performed with WP as the dependent variable and demographic data, potential traumatic events, PTSD, and depressive disorder as independent variables. Of 773 respondents, 147 (19.0%) reported WP. Participants with WP reported rape (4.1% vs 1.0%,  $P=0.01$ ), life-threatening illness (11.6% vs 6.1%,  $P=0.02$ ), witnessing trauma (19.2% vs 8.4%,  $P=0.001$ ), and cumulative potential traumatic events (24.5% vs. 16.5%,  $P=0.004$ ) more frequently than the 626 controls. The prevalence of full PTSD (10.9% vs 2.2%;  $P<0.0001$ ) and of potential depressive disorder (13.7% vs 6.6%,  $P=0.02$ ) was higher in participants with WP than in controls. The significant association between some potential traumatic events and WP was completely abrogated after adjusting for demographic variables and PTSD. In the final model, PTSD (odds ratio 3.43, 95% confidence interval 1.88-6.26) and lifetime employment status as a worker (odds ratio 1.55, 95% confidence interval 1.04-2.31) predicted WP. Prospective studies are necessary to understand the temporal association of PTSD and WP.

Hemilä, H. and E. Chalker (2013) **Vitamin C for preventing and treating the common cold**. *Cochrane Database of Systematic Reviews* DOI: 10.1002/14651858.CD000980.pub3

(Updated review - free full text available): Background: Vitamin C (ascorbic acid) for preventing and treating the common cold has been a subject of controversy for 70 years. Objectives: To find out whether vitamin C reduces the incidence, the duration or severity of the common cold when used either as a continuous regular supplementation every day or as a therapy at the onset of cold symptoms. Search methods: We searched CENTRAL 2012, Issue 11, MEDLINE (1966 to November week 3, 2012), EMBASE (1990 to November 2012), CINAHL (January 2010 to November 2012), LILACS (January 2010 to November 2012) and Web of Science (January 2010 to November 2012). We also searched the U.S. National Institutes of Health trials register and WHO ICTRP on 29 November 2012. Selection criteria: We excluded trials which used less than 0.2 g per day of vitamin C and trials without a placebo comparison. We restricted our review to placebo-controlled trials. Data collection and analysis: Two review authors independently extracted data. We assessed 'incidence' of colds during regular supplementation as the proportion of participants experiencing one or more colds during the study period. 'Duration' was the mean number of days of illness of cold episodes. Main results: Twenty-nine trial comparisons involving 11,306 participants contributed to the meta-analysis on the risk ratio (RR) of developing a cold whilst taking vitamin C regularly over the study period. In the general community trials involving 10,708 participants, the pooled RR was 0.97 (95% confidence interval (CI) 0.94 to 1.00). Five trials involving a total of 598 marathon runners, skiers and soldiers on subarctic exercises yielded a pooled RR of 0.48 (95% CI 0.35 to 0.64). Thirty-one comparisons examined the effect of regular vitamin C on common cold duration (9745 episodes). In adults the duration of colds was reduced by 8% (3% to 12%) and in children by 14% (7% to 21%). In children, 1 to 2 g/day vitamin C shortened colds by 18%. The severity of colds was also reduced by regular vitamin C administration. Seven comparisons examined the effect of therapeutic vitamin C (3249 episodes). No consistent effect of vitamin C was seen on the duration or severity of colds in the therapeutic trials. The majority of included trials were randomised, double-blind trials. The exclusion of trials that were either not randomised or not double-blind had no effect on the conclusions. Authors' conclusions: The failure of vitamin C supplementation to reduce the incidence of colds in the general population indicates that routine vitamin C supplementation is not justified, yet vitamin C may be useful for people exposed to brief periods of severe physical exercise. Regular supplementation trials have shown that vitamin C reduces the duration of colds, but this was not replicated in the few therapeutic trials that have been carried out. Nevertheless, given the consistent effect of vitamin C on the duration and severity of colds in the regular supplementation studies, and the low cost and safety, it may be worthwhile for common cold patients to test on an individual basis whether therapeutic vitamin C is beneficial for them. Further therapeutic RCTs are warranted. VITAMIN C FOR PREVENTING AND TREATING THE COMMON COLD: The common cold is a major cause of visits to a doctor in high-income countries and of absenteeism from work and school. There are over 200 viruses which can cause the common cold symptoms including runny nose, congestion, sneezing, sore throat, cough, and sometimes headache, fever and red eyes. Symptoms vary from person to person and cold to cold. Since the common cold is usually caused by one of the respiratory viruses, antibiotics are useless and therefore other potential treatment options are of substantial public health interest. Vitamin C has been proposed for treating respiratory infections since it was isolated in the 1930s. It became particularly popular in the 1970s when Nobel laureate Linus Pauling concluded from earlier placebo-controlled trials that vitamin C would prevent and alleviate the common cold. Over two dozen new trials were undertaken thereafter. Vitamin C has been widely sold and used as a preventive and therapeutic agent. This review is restricted to placebo-controlled trials testing 0.2 g/day or more of vitamin C. Regular ingestion of vitamin C had no effect on common cold incidence in the ordinary population, based on 29 trial comparisons involving 11,306 participants. However, regular supplementation had a modest but consistent effect in reducing the duration of common cold symptoms, which is based on 31 study comparisons with 9745 common cold episodes. In five trials with 598 participants exposed to short periods of extreme physical stress (including marathon runners and skiers) vitamin C halved the common cold risk. The published trials have not reported adverse effects of vitamin C. Trials of high doses of vitamin C administered therapeutically, starting after the onset of symptoms, showed no consistent effect on the duration or severity of common cold symptoms. However, only a few therapeutic trials have been carried out and none have examined children, although the effect of prophylactic vitamin C has been greater in children. One large trial with adults reported benefit from an 8 g therapeutic dose at the onset of symptoms, and two therapeutic trials using five-day supplementation reported benefit. More trials are necessary to settle the possible role of therapeutic vitamin C, meaning administration immediately after the onset of symptoms.

Huedo-Medina, T. B., I. Kirsch, et al. (2012). **"Effectiveness of non-benzodiazepine hypnotics in treatment of adult insomnia: Meta-analysis of data submitted to the food and drug administration."** *BMJ* 345: e8343. <http://www.ncbi.nlm.nih.gov/pubmed/23248080>

OBJECTIVES: To investigate the effectiveness of non-benzodiazepine hypnotics (Z drugs) and associated placebo responses in adults and to evaluate potential moderators of effectiveness in a dataset used to approve these drugs. DESIGN: Systematic review and meta-analysis. DATA SOURCE: US Food and Drug Administration (FDA). STUDY SELECTION: Randomised double blind parallel placebo controlled trials of currently approved Z drugs (eszopiclone, zaleplon, and zolpidem). DATA EXTRACTION: Change score from baseline to post-test for drug and placebo groups; drug efficacy analysed as the difference of both change scores. Weighted raw and standardised mean differences with their confidence intervals under random effects assumptions for polysomnographic and subjective sleep latency, as primary outcomes. Secondary outcomes included waking after sleep onset, number of awakenings, total sleep time, sleep efficiency, and subjective sleep quality. Weighted least square regression analysis was used to explain heterogeneity of drug effects. DATA SYNTHESIS: 13 studies containing 65 separate drug-placebo comparisons by type of outcome, type of drug, and dose were included. Studies included 4378 participants from different countries and varying drug doses, lengths of treatment, and study years. Z drugs showed significant, albeit small,

improvements (reductions) in our primary outcomes: polysomnographic sleep latency (weighted standardised mean difference, 95% confidence interval -0.57 to -0.16) and subjective sleep latency (-0.33, -0.62 to -0.04) compared with placebo. Analyses of weighted mean raw differences showed that Z drugs decreased polysomnographic sleep latency by 22 minutes (-33 to -11 minutes) compared with placebo. Although no significant effects were found in secondary outcomes, there were insufficient studies reporting these outcomes to allow firm conclusions. Moderator analyses indicated that sleep latency was more likely to be reduced in studies published earlier, with larger drug doses, with longer duration of treatment, with a greater proportion of younger and/or female patients, and with zolpidem. **CONCLUSION:** Compared with placebo, Z drugs produce slight improvements in subjective and polysomnographic sleep latency, especially with larger doses and regardless of type of drug. Although the drug effect and the placebo response were rather small and of questionable clinical importance, the two together produced to a reasonably large clinical response.

Lau, M., L. Colley, et al. (2012). **"Employee's preferences for access to mindfulness-based cognitive therapy to reduce the risk of depressive relapse - a discrete choice experiment."** *Mindfulness (N Y)* 3(4): 318-326. <http://dx.doi.org/10.1007/s12671-012-0108-3>

Disseminating mindfulness-based cognitive therapy (MBCT), an evidence-based group treatment, in the workplace may help employees who have recovered from depression to prevent depressive relapse and stay well. Employees' potential confidentiality concerns about participating in a group-based workplace MBCT intervention may be alleviated by delivering MBCT in alternative formats that would maintain the employees' anonymity. The aim of the current study was to determine the stated preferences of employees from large healthcare organizations for four different MBCT delivery methods (i.e., group, online group, individual, and individual via the telephone). We determined the stated preferences of 151 health authority employees for the four MBCT delivery methods using a discrete choice experiment comprised of 18 choice sets of five attributes. A latent class model was used to evaluate the heterogeneity of respondents' preferences. This analysis suggested that four classes existed in the sample. The most important preferences were the effectiveness of MBCT, the type of interaction, face-to-face delivery, and receipt of MBCT on their own time. These results suggest strong preferences for the four different MBCT delivery methods. The presence of latent classes also shows that preferences for alternative modes of delivery vary in association with differences in sociodemographic variables between groups of employees. The overall findings of this study have the potential to influence the development of institutional programs that could make workplace MBCT more appealing to a greater number of employees, thereby improving participant uptake, decreasing the potential for depressive relapse, and minimizing absenteeism.

Layous, K., S. K. Nelson, et al. (2012). **"Kindness counts: Prompting prosocial behavior in preadolescents boosts peer acceptance and well-being."** *PLoS ONE* 7(12): e51380. <http://dx.doi.org/10.1371/journal.pone.0051380>

(Accessible in free full text): At the top of parents' many wishes is for their children to be happy, to be good, and to be well-liked. Our findings suggest that these goals may not only be compatible but also reciprocal. In a longitudinal experiment conducted in 19 classrooms in Vancouver, 9- to 11-year olds were instructed to perform three acts of kindness (versus visit three places) per week over the course of 4 weeks. Students in both conditions improved in well-being, but students who performed kind acts experienced significantly bigger increases in peer acceptance (or sociometric popularity) than students who visited places. Increasing peer acceptance is a critical goal, as it is related to a variety of important academic and social outcomes, including reduced likelihood of being bullied. Teachers and interventionists can build on this study by introducing intentional prosocial activities into classrooms and recommending that such activities be performed regularly and purposefully.

Legault, L., T. Al-Khindi, et al. (2012). **"Preserving integrity in the face of performance threat: Self-affirmation enhances neurophysiological responsiveness to errors."** *Psychological Science* 23(12): 1455-1460. <http://pss.sagepub.com/content/23/12/1455.abstract>

Self-affirmation produces large effects: Even a simple reminder of one's core values reduces defensiveness against threatening information. But how, exactly, does self-affirmation work? We explored this question by examining the impact of self-affirmation on neurophysiological responses to threatening events. We hypothesized that because self-affirmation increases openness to threat and enhances approachability of unfavorable feedback, it should augment attention and emotional receptivity to performance errors. We further hypothesized that this augmentation could be assessed directly, at the level of the brain. We measured self-affirmed and nonaffirmed participants' electrophysiological responses to making errors on a task. As we anticipated, self-affirmation elicited greater error responsiveness than did nonaffirmation, as indexed by the error-related negativity, a neural signal of error monitoring. Self-affirmed participants also performed better on the task than did nonaffirmed participants. We offer novel brain evidence that self-affirmation increases openness to threat and discuss the role of error detection in the link between self-affirmation and performance.

Lemay, E. P., N. C. Overall, et al. (2012). **"Experiences and interpersonal consequences of hurt feelings and anger."** *J Pers Soc Psychol* 103(6): 982-1006. <http://www.ncbi.nlm.nih.gov/pubmed/22984830>

This research compared the experiences and consequences of hurt feelings and anger in 3 retrospective studies (Studies 1a, 1b, and 2), a dyadic daily diary study (Study 3), and a dyadic behavioral observation study (Study 4). Although victims felt both hurt and angry in response to perpetrators' behaviors that signaled relational devaluation (Studies 1-4), hurt and anger differed in terms of victims' subjective experiences and behaviors, perpetrators' responses, and relationship consequences. Hurt was characterized by the experience of commitment, dependence, and vulnerability; goals to restore the perpetrator's acceptance; and constructive behavior. Moreover, victims' hurt was associated with perpetrators evaluating victims and victims' commitment more positively, with perpetrators' feelings of guilt and empathy and with perpetrators' constructive responses. Hurt also had positive consequences for relationships. In contrast, victims' anger was generally independent of commitment and characterized by the experience of control, invulnerability, and low dependence; goals to change perpetrators' behavior; and victims' destructive behavior. Furthermore, victims' anger was associated with perpetrators perceiving victims to be less committed and elicited reciprocated anger and destructive behaviors from perpetrators. These findings suggest that despite relational devaluation being a cause of both hurt and anger, these feelings have distinct social functions. Hurt reflects a desire to maintain interpersonal connection and repair relationships, which will often successfully elicit repair attempts by perpetrators, whereas anger reflects a desire to control others via antagonistic destructive behaviors, which exacerbate interpersonal difficulties.

Meiklejohn, J., C. Phillips, et al. (2012). **"Integrating mindfulness training into k-12 education: Fostering the resilience of teachers and students."** *Mindfulness (N Y)* 3(4): 291-307. <http://dx.doi.org/10.1007/s12671-012-0094-5>

Over the past decade, training in mindfulness—the intentional cultivation of moment-by-moment non-judgmental focused attention and awareness—has spread from its initial western applications in medicine to other fields, including education. This paper reviews research and curricula pertaining to the integration of mindfulness training into K-12 education, both indirectly by training teachers and through direct teaching of students. Research on the neurobiology of mindfulness in adults suggests that sustained mindfulness practice can enhance attentional and emotional self-regulation and promote

flexibility, pointing toward significant potential benefits for both teachers and students. Early research results on three illustrative mindfulness-based teacher training initiatives suggest that personal training in mindfulness skills can increase teachers' sense of well-being and teaching self-efficacy, as well as their ability to manage classroom behavior and establish and maintain supportive relationships with students. Since 2005, 14 studies of programs that directly train students in mindfulness have collectively demonstrated a range of cognitive, social, and psychological benefits to both elementary (six studies) and high school (eight studies) students. These include improvements in working memory, attention, academic skills, social skills, emotional regulation, and self-esteem, as well as self-reported improvements in mood and decreases in anxiety, stress, and fatigue. The educational goals, target population, and core features of ten established mindfulness-based curricula are described. Finally, the need for more rigorous scientific evidence of the benefits of mindfulness-based interventions in K-12 education is discussed, along with suggestions of specific process, outcome, and research-design questions remaining to be answered.

Moore, R. A., S. Derry, et al. (2012). **"Amitriptyline for neuropathic pain and fibromyalgia in adults."** *Cochrane Database Syst Rev* 12: CD008242. <http://www.ncbi.nlm.nih.gov/pubmed/23235657>

**BACKGROUND:** Amitriptyline is a tricyclic antidepressant that is widely used to treat chronic neuropathic pain (pain due to nerve damage) and fibromyalgia, and is recommended in many guidelines. These types of pain can be treated with antidepressant drugs in doses below those at which the drugs act as antidepressants. **OBJECTIVES:** To assess the analgesic efficacy of amitriptyline for chronic neuropathic pain and fibromyalgia. To assess the adverse events associated with the clinical use of amitriptyline for chronic neuropathic pain and fibromyalgia. **SEARCH METHODS:** We searched CENTRAL, MEDLINE, and EMBASE to September 2012, together with reference lists of retrieved papers, previous systematic reviews, and other reviews; we also used our own handsearched database for older studies. **SELECTION CRITERIA:** We included randomised, double-blind studies of at least four weeks' duration comparing amitriptyline with placebo or another active treatment in chronic neuropathic pain or fibromyalgia. **DATA COLLECTION AND ANALYSIS:** We extracted efficacy and adverse event data, and two study authors examined issues of study quality independently. We performed analysis using two tiers of evidence. The first tier used data meeting current best standards, where studies reported the outcome of at least 50% pain intensity reduction over baseline (or its equivalent), without the use of last observation carried forward (LOCF) or other imputation method for dropouts, reported an intention-to-treat (ITT) analysis, lasted 8 to 12 weeks or longer, had a parallel-group design, and where there were at least 200 participants in the comparison. The second tier used data that failed to meet this standard and were therefore subject to potential bias. **MAIN RESULTS:** Twenty-one studies (1437 participants) were included; they individually involved between 15 and 235 participants, only four involved over 100 participants, and the median study size was 44 participants. The median duration was six weeks. Ten studies had a cross-over design. Doses of amitriptyline were generally between 25 mg and 125 mg, and dose escalation was common. There was no top-tier evidence for amitriptyline in treating neuropathic pain or fibromyalgia. Second-tier evidence indicated no evidence of effect in cancer-related neuropathic pain or HIV-related neuropathic pain, but some evidence of effect in painful diabetic neuropathy (PDN), mixed neuropathic pain, and fibromyalgia. Combining the classic neuropathic pain conditions of PDN, postherpetic neuralgia (PHN) and post-stroke pain with fibromyalgia for second-tier evidence, in eight studies and 687 participants, there was a statistically significant benefit (risk ratio (RR) 2.3, 95% confidence interval (CI) 1.8 to 3.1) with a number needed to treat (NNT) of 4.6 (3.6 to 6.6). The analysis showed that even using this potentially biased data, only about 38% of participants benefited with amitriptyline and 16% with placebo; most participants did not get adequate pain relief. Potential benefits of amitriptyline were supported by a lower rate of lack of efficacy withdrawals; 8/153 (5%) withdrew because of lack of efficacy with amitriptyline and 14/119 (12%) with placebo. More participants experienced at least one adverse event; 64% of participants taking amitriptyline and 40% taking placebo. The RR was 1.5 (95% CI 1.4 to 1.7) and the number needed to treat to harm was 4.1 (95% CI 3.2 to 5.7). Adverse event and all-cause withdrawals were not different. **AUTHORS' CONCLUSIONS:** Amitriptyline has been a first-line treatment for neuropathic pain for many years. The fact that there is no supportive unbiased evidence for a beneficial effect is disappointing, but has to be balanced against decades of successful treatment in many patients with neuropathic pain or fibromyalgia. There is no good evidence of a lack of effect; rather our concern should be of overestimation of treatment effect. Amitriptyline should continue to be used as part of the treatment of neuropathic pain or fibromyalgia, but only a minority of patients will achieve satisfactory pain relief. Limited information suggests that failure with one antidepressant does not mean failure with all. It is unlikely that any large randomised trials of amitriptyline will be conducted in specific neuropathic pain conditions or in fibromyalgia to prove efficacy.

Moshkin, M., N. Litvinova, et al. (2012). **"Scent recognition of infected status in humans."** *The Journal of Sexual Medicine* 9(12): 3211-3218. <http://dx.doi.org/10.1111/j.1743-6109.2011.02562.x>

**Introduction.** There is a body of experimental evidence that mice and rats use chemical signals to avoid sexual contact with infected conspecifics. In contrast to animals, body scent of sick humans is employed only in medical diagnostics. A modification of human body odor, due to an infection, has not been studied as a potential signal for choice of a sexual partner. It might, however, be especially important for sexually transmitted infections (STI) because many such infections have no obvious external manifestations. **Aim.** In this study, we have investigated odor pleasantness of young men infected with gonorrhoea, *Neisseria gonorrhoeae*. **Methods.** We collected armpit sweat and saliva from young men (17–25 years old) belonging to three groups: healthy persons (N = 16), young men infected with gonorrhoea, *Neisseria gonorrhoeae* (N = 13), and persons recovered due to specific therapy (N = 5). The sweat samples odor was then assessed by healthy young women (17–20 years old). Concentrations of cortisol, testosterone, immunoglobulin A (IgA), and immunoglobulin G (IgG) were measured in saliva by means of enzyme-linked immunosorbent assay. **Main Outcome Measures.** Subjective rates of odor pleasantness, association of scent of armpit sweat with odor descriptors, stepwise regression of odor pleasantness and salivary cortisol, testosterone, IgA, and IgG. **Results.** The odor from infected individuals was reported as less pleasant in comparison with the odor of healthy and recovered young men. The scent of infected men was more frequently associated by raters with the descriptor "putrid." Odor pleasantness of the male sweat correlated negatively with concentration of the nonspecific salivary IgA and IgG, which was measured as an indicator of current immunoenhancement. **Conclusion.** Perhaps, the immune-dependent reduction of the scent pleasantness in the acute phase of STI is part of an evolutionary mechanism ensuring, unconsciously, avoidance of a risky romantic partner. Moshkin M, Litvinova N, Litvinova EA, Bedareva A, Lutsyuk A, and Gerlinskaya L. Scent recognition of infected status in humans. *J Sex Med* 2012;9:3211–3218.

Nelson, J. C. (2012). **"The evolving story of folate in depression and the therapeutic potential of l-methylfolate."** *Am J Psychiatry* 169(12): 1223-1225. <http://ajp.psychiatryonline.org/article.aspx?articleid=1461094>

(Full text freely available) In this issue, Papakostas and colleagues report the successful use of adjunctive l-methylfolate in treatment-resistant patients with major depressive disorder. The study employs a novel trial design, the sequenced parallel comparison design, and adds to the growing literature suggesting that the one-carbon cycle may moderate antidepressant treatment response. The study involved two trials. The first compared l-methylfolate at 7.5 mg/day with placebo in 148 patients with nonpsychotic unipolar depression. All patients had a prior failed 8-week trial of a selective serotonin



reuptake inhibitor (SSRI). L-Methylfolate at 7.5 mg/day was not more effective than placebo, but efficacy was suggested for a small group of patients in the trial who were treated with 15 mg/day. Based on that finding, a second trial was conducted in 75 patients using 15 mg/day or placebo. The difference in response rates between L-methylfolate at 15 mg/day and placebo (32.3% and 14.6%, respectively) was significant and meaningful. The number needed to treat, six, is quite respectable. Side effects were no more common with L-methylfolate than with placebo, which suggests that side effects were not likely to unblind the investigators or patients to treatment assignment ... The association of depressive symptoms and folate deficiency has been known for five decades. Numerous studies have found low serum folate levels or low RBC folate concentrations in depressed patients. Other studies suggested that low folate levels are associated with reduced response to antidepressants, which in turn suggested that folic acid might be used to augment antidepressants. Coppen and Bailey conducted a double-blind placebo-controlled study of adjunctive folic acid (500 µg/day) added to fluoxetine at the beginning of treatment in patients with major depressive disorder. They found that adjunctive folic acid was effective in women but not in men. Resler et al. also observed greater improvement with folic acid in 27 patients with major depression who were being treated with fluoxetine (20 mg/day) and were randomly assigned to receive to folic acid (10 mg/day) or placebo. Alpert et al. noted modest improvement in depressive symptoms after they administered folic acid in an open-label study to 22 patients who had failed to respond to 4 weeks of SSRI treatment. In those three studies, patients with major depression were selected without regard to folate deficiency. Trials of both monotherapy and adjunctive L-methylfolate have been reported. Four monotherapy trials (reviewed elsewhere), suggested efficacy. Two were open trials and two were double-blind trials comparing L-methylfolate with antidepressants. The first adjunctive trial was a double-blind placebo-controlled trial in 24 patients with major depression who had deficient RBC folate levels. L-Methylfolate at 15 mg/day was added to ongoing antidepressant treatment. At 3 months and at 6 months, patients receiving adjunctive L-methylfolate exhibited greater improvement than those in the placebo group ... In summary, the Papakostas et al. study suggests that L-methylfolate is a useful treatment for depression that has proved to be resistant to a course of SSRI treatment. Previous studies of folic acid, folinic acid, and L-methylfolate support this contention. L-Methylfolate was well tolerated and may be preferred by patients for that reason. It may be particularly helpful in patients with the TT genetic variant. The efficacy of L-methylfolate in resistant depression has not been compared with that of other adjunctive agents, nor has long-term use of the agent been reported in major depression. The potential value of long-term administration of L-methylfolate in individuals with recurrent depression and the genetic enzyme deficiency is particularly intriguing.

Nelson, S. K., K. Kushlev, et al. (2012). **"In defense of parenthood: Children are associated with more joy than misery."** *Psychological Science*. <http://pss.sagepub.com/content/early/2012/11/30/0956797612447798.abstract>

Recent scholarly and media accounts paint a portrait of unhappy parents who find remarkably little joy in taking care of their children, but the scientific basis for these claims remains inconclusive. In the three studies reported here, we used a strategy of converging evidence to test whether parents evaluate their lives more positively than do nonparents (Study 1), feel relatively better than do nonparents on a day-to-day basis (Study 2), and derive more positive feelings from caring for their children than from other daily activities (Study 3). The results indicate that, contrary to previous reports, parents (and especially fathers) report relatively higher levels of happiness, positive emotion, and meaning in life than do nonparents. (Available in free full text from Sonja Lyubomirsky's website: <http://sonjalubomirsky.com/papers-publications/>).

Niezink, L., F. Siero, et al. (2012). **"Empathic concern: Distinguishing between tenderness and sympathy."** *Motivation and Emotion* 36(4): 544-549. <http://dx.doi.org/10.1007/s11031-011-9276-z>

(Free full text available) The present research proposes that empathic concern, as assessed by six items of the ERQ, consists of two separate emotions, i.e., tenderness and sympathy. To test this assumption, nine studies were conducted among, in total, 1,273 participants. In these studies participants were presented with a hypothetical scenario of someone in need, after which empathic concern was assessed. Factor analyses showed that, indeed, the ERQ items that assess empathic concern can be split up in two factors, that is, one reflecting sympathy and one reflecting tenderness. In addition, in line with previous studies, our research showed that, in response to a need-situation that reflects current needs, individuals scored higher on the ERQ factor reflecting sympathy than on the ERQ factor reflecting tenderness. Findings are discussed in terms of the practical and theoretical implications of distinguishing between sympathy and tenderness.

Oishi, S. and S. Kesebir (2012). **"Optimal social-networking strategy is a function of socioeconomic conditions."** *Psychological Science* 23(12): 1542-1548. <http://pss.sagepub.com/content/23/12/1542.abstract>

In the two studies reported here, we examined the relation among residential mobility, economic conditions, and optimal social-networking strategy. In Study 1, a computer simulation showed that regardless of economic conditions, having a broad social network with weak friendship ties is advantageous when friends are likely to move away. By contrast, having a small social network with deep friendship ties is advantageous when the economy is unstable but friends are not likely to move away. In Study 2, we examined the validity of the computer simulation using a sample of American adults. Results were consistent with the simulation: American adults living in a zip code where people are residentially stable but economically challenged were happier if they had a narrow but deep social network, whereas in other socioeconomic conditions, people were generally happier if they had a broad but shallow networking strategy. Together, our studies demonstrate that the optimal social-networking strategy varies as a function of socioeconomic conditions.

Okusaga, O. and T. T. Postolache (2012). ***Toxoplasma gondii, the immune system, and suicidal behavior.*** *The neurobiological basis of suicide*. Y. Dwivedi. Boca Raton (FL).

Each year suicide leads to the tragic and premature deaths of over 1 million individuals around the world with an estimated annual mortality of 14.5 per 100,000 people. This translates to one death occurring every 40 s. Suicide is the 10th leading cause of death, making up 11.5% of all deaths (Hawton and van Heeringen 2009), though this burden is probably underestimated considering many third world countries appear to underreport suicide 9-10 times the actual amount (Hawton and van Heeringen 2009). While suicide rates have remained constant for the last decade, the three greatest causes of death (heart disease, cancer, and cerebrovascular disease) have all seen a decrease in death rates in this time period. Two of the most important risk factors for suicide are history of past suicide attempt (Harris and Barraclough 1997; Mann 2003) and a history of mood disorder. Every suicide is preceded by an estimated 8-25 suicide attempts, and 4% of depressed individuals die from suicide (Hawton and van Heeringen 2009). Additionally, more than half of individuals who attempt suicide had a major depressive episode at the time of the attempt. For the past 7 years, our team at the University of Maryland School of Medicine Mood and Anxiety Program has been focused on studying triggers and vulnerabilities for suicide originating in the natural environment, that is, physical, chemical, and biological. In particular, we have been interested in the highly consistent peaks of suicide (Postolache et al. 2010) during certain seasons and their possible triggers. Specifically, we have identified (1) a relationship between atmospheric peaks of aeroallergens and suicide attempts in women (Postolache et al. 2005), confirmed in Denmark (Qin et al. 2011), (2) a relationship between suicide and allergy (Qin et al. 2011), and (3) an increased expression of allergy-related cytokines in the prefrontal cortex of suicide victims (Tonelli et al. 2008b). We have also reported that intranasal administration of allergens induces animal behaviors that are analogous to certain suicide risk factors such as aggression (Tonelli

et al. 2008a) and anxiety (Tonelli et al. 2009). Our intermediate conclusion is that molecular and cellular mechanisms involved in the allergic immune response might attenuate functional capabilities of areas of the prefrontal cortex to act as behavioral breaks via multisynaptic inhibition of infralimbic centers. Following this line of thought, if allergy (a misdirected immune response against innocuous substances that were "misperceived" by the immune system as invasive pathogens) is associated with suicidal behavior, one would expect real neurotropic parasites to also be associated with suicide behavior. This led us to investigate *Toxoplasma gondii* and the anti-*T. gondii* immune response. A possible connection between *T. gondii* and suicidal behavior was suggested by the relatively high seroprevalence, its neurotropism (Flegr 2007), the immune activation involved in the defense against the parasite leading to elevation of cytokines previously found related to suicidal behavior (see Section 19.3.2), the occurrence of induced self-destructive behavior in rodent models (Lamberton et al. 2008; Vyas et al. 2007; Webster 2007), behavioral changes in humans (Flegr et al. 2002), and the parasite's association with mental illness (Niebuhr et al. 2008; Torrey et al. 2007). We will first briefly review the immune system and the evidence connecting immune activation with suicidal behavior, and then we will describe the immune response to *T. gondii*, followed by a description of the parasite and the evidence associating *T. gondii* infection with suicidal behavior.

Paluck, E. L. and H. Shepherd (2012). **"The salience of social referents: A field experiment on collective norms and harassment behavior in a school social network."** *J Pers Soc Psychol* 103(6): 899-915.  
<http://www.ncbi.nlm.nih.gov/pubmed/22984831>

Persistent, widespread harassment in schools can be understood as a product of collective school norms that deem harassment, and behavior allowing harassment to escalate, as typical and even desirable. Thus, one approach to reducing harassment is to change students' perceptions of these collective norms. Theory suggests that the public behavior of highly connected and chronically salient actors in a group, called social referents, may provide influential cues for individuals' perception of collective norms. Using repeated, complete social network surveys of a public high school, we demonstrate that changing the public behavior of a randomly assigned subset of student social referents changes their peers' perceptions of school collective norms and their harassment behavior. Social referents exert their influence over peers' perceptions of collective norms through the mechanism of everyday social interaction, particularly interaction that is frequent and personally motivated, in contrast to interaction shaped by institutional channels like shared classes. These findings clarify the development of collective social norms: They depend on certain patterns of and motivations for social interactions within groups across time, and are not static but constantly reshaped and reproduced through these interactions. Understanding this process creates opportunities for changing collective norms and behavior.

Papakostas, G. I., C. F. Cassiello, et al. (2012). **"Folates and s-adenosylmethionine for major depressive disorder."** *Can J Psychiatry* 57(7): 406-413. <http://www.ncbi.nlm.nih.gov/pubmed/22762295>

Interest in nonpharmaceutical supplements for treating major depressive disorder (MDD) has increased significantly, both among patients and among clinicians during the past decades. Despite the large array of antidepressants (ADs) available, many patients continue to experience relatively modest response and remission rates, in addition to a burden of side effects that can hinder treatment compliance and acceptability. In this article, we review the literature on folates and S-adenosylmethionine (SAME), 2 natural compounds linked in the 1-carbon cycle metabolic pathway, for which substantial evidence supports their involvement in mood disorders. Background information, efficacy data, proposed mechanisms of action, and side effects are reviewed. Based on existing data, supplementation with SAME, as well as with various formulations of folates, appears to be efficacious and well tolerated in reducing depressive symptoms. Compared with other forms of folates, 5-methyltetrahydrofolate (L-methylfolate or 5-MTHF) may represent a preferable treatment option for MDD given its greater bioavailability in patients with a genetic polymorphism, and the lower risk of specific side effects associated with folic acid. Although further randomized controlled trials in this area appear warranted, SAME and L-methylfolate may represent a useful addition to the AD armamentarium.

Papakostas, G. I., R. C. Shelton, et al. (2012). **"L-methylfolate as adjunctive therapy for ssri-resistant major depression: Results of two randomized, double-blind, parallel-sequential trials."** *Am J Psychiatry* 169(12): 1267-1274.  
<http://www.ncbi.nlm.nih.gov/pubmed/23212058>

**OBJECTIVE:** The authors conducted two multicenter sequential parallel comparison design trials to investigate the effect of L-methylfolate augmentation in the treatment of major depressive disorder in patients who had a partial response or no response to selective serotonin reuptake inhibitors (SSRIs). **METHOD:** In the first trial, 148 outpatients with SSRI-resistant major depressive disorder were enrolled in a 60-day study divided into two 30-day periods. Patients were randomly assigned, in a 2:3:3 ratio, to receive L-methylfolate for 60 days (7.5 mg/day for 30 days followed by 15 mg/day for 30 days), placebo for 30 days followed by L-methylfolate (7.5 mg/day) for 30 days, or placebo for 60 days. SSRI dosages were kept constant throughout the study. In the second trial, with 75 patients, the design was identical to the first, except that the L-methylfolate dosage was 15 mg/day during both 30-day periods. **RESULTS:** In the first trial, no significant difference was observed in outcomes between the treatment groups. In the second trial, adjunctive L-methylfolate at 15 mg/day showed significantly greater efficacy compared with continued SSRI therapy plus placebo on both primary outcome measures (response rate and degree of change in depression symptom score) and two secondary outcome measures of symptom severity. The number needed to treat for response was approximately six in favor of adjunctive L-methylfolate at 15 mg/day. L-Methylfolate was well tolerated, with rates of adverse events no different from those reported with placebo. **CONCLUSIONS:** Adjunctive L-methylfolate at 15 mg/day may constitute an effective, safe, and relatively well tolerated treatment strategy for patients with major depressive disorder who have a partial response or no response to SSRIs.

Piet, J., H. Wurtzen, et al. (2012). **"The effect of mindfulness-based therapy on symptoms of anxiety and depression in adult cancer patients and survivors: A systematic review and meta-analysis."** *J Consult Clin Psychol* 80(6): 1007-1020.  
<http://www.ncbi.nlm.nih.gov/pubmed/22563637>

**OBJECTIVE:** The use of mindfulness-based therapy (MBT) in oncology settings has become increasingly popular, and research in the field has rapidly expanded. The objective was by means of a systematic review and meta-analysis to evaluate the current evidence for the effect of MBT on symptoms of anxiety and depression in adult cancer patients and survivors. **METHOD:** Electronic databases were searched, and researchers were contacted for further relevant studies. Twenty-two independent studies with a total of 1,403 participants were included. Studies were coded for quality (range: 0-4), and overall effect size analyses were performed separately for nonrandomized studies ( $K = 13$ ,  $n = 448$ ) and randomized controlled trials (RCTs;  $K = 9$ ,  $n = 955$ ). Effect sizes were combined using the random-effects model. **RESULTS:** In the aggregated sample of nonrandomized studies (average quality score: 0.5), MBT was associated with significantly reduced symptoms of anxiety and depression from pre- to posttreatment corresponding to moderate effect sizes (Hedges's  $g$ ) of 0.60 and 0.42, respectively. The pooled controlled effect sizes (Hedges's  $g$ ) of RCTs (average quality score: 2.9) were 0.37 for anxiety symptoms ( $p < .001$ ) and 0.44 for symptoms of depression ( $p < .001$ ). These effect sizes appeared robust. Furthermore, in RCTs, MBT significantly improved mindfulness skills (Hedges's  $g = 0.39$ ). **CONCLUSION:** While the overall quality of existing clinical trials varies



considerably, there appears to be some positive evidence from relatively high-quality RCTs to support the use of MBT for cancer patients and survivors with symptoms of anxiety and depression.

Pinniger, R., R. F. Brown, et al. (2012). **"Argentine tango dance compared to mindfulness meditation and a waiting-list control: A randomised trial for treating depression."** *Complementary Therapies in Medicine* 20(6): 377-384.  
<http://www.sciencedirect.com/science/article/pii/S0965229912000891>

**Summary Objectives** To determine whether tango dancing is as effective as mindfulness meditation in reducing symptoms of psychological stress, anxiety and depression, and in promoting well-being. **Design** This study employed analysis of covariance (ANCOVA) and multiple regression analysis. **Participants** Ninety-seven people with self-declared depression were randomised into tango dance or mindfulness meditation classes, or to control/waiting-list. **Setting** classes were conducted in a venue suitable for both activities in the metropolitan area of Sydney, Australia. **Interventions** Participants completed six-week programmes (1½ h/week of tango or meditation). **The outcome measures** were assessed at pre-test and post-test. **Main outcome measures** Depression, Anxiety and Stress Scale; The Self Esteem Scale; Satisfaction with Life Scale, and Mindful Attention Awareness Scale. **Results** Sixty-six participants completed the program and were included in the statistical analysis. Depression levels were significantly reduced in the tango (effect size  $d = 0.50$ ,  $p = .010$ ), and meditation groups (effect size  $d = 0.54$ ,  $p = .025$ ), relative to waiting-list controls. Stress levels were significantly reduced only in the tango group (effect size  $d = 0.45$ ,  $p = .022$ ). Attending tango classes was a significant predictor for the increased levels of mindfulness  $R^2 = .10$ , adjusted  $R^2 = .07$ ,  $F(2,59) = 3.42$ ,  $p = .039$ . **Conclusion** Mindfulness-meditation and tango dance could be effective complementary adjuncts for the treatment of depression and/or inclusion in stress management programmes. Subsequent trials are called to explore the therapeutic mechanisms involved.

Rethorst, C. D., P. Sunderajan, et al. (2012). **"Does exercise improve self-reported sleep quality in non-remitted major depressive disorder?"** *Psychol Med*: 1-11. <http://www.ncbi.nlm.nih.gov/pubmed/23171815>

**BACKGROUND:** Sleep disturbances are persistent residual symptoms following remission of major depressive disorder (MDD) and are associated with an increased risk of MDD recurrence. The purpose of the current study was to examine the effect of exercise augmentation on self-reported sleep quality in participants with non-remitted MDD. **Method** Participants were randomized to receive selective serotonin reuptake inhibitor (SSRI) augmentation with one of two doses of exercise: 16 kilocalories per kilogram of body weight per week (KKW) or 4 KKW for 12 weeks. Depressive symptoms were assessed using the clinician-rated Inventory of Depressive Symptomatology (IDS-C). The four sleep-related items on the IDS-C (Sleep Onset Insomnia, Mid-Nocturnal Insomnia, Early Morning Insomnia, and Hypersomnia) were used to assess self-reported sleep quality. **RESULTS:** Significant decreases in total insomnia ( $p < 0.0001$ ) were observed, along with decreases in sleep onset, mid-nocturnal and early-morning insomnia ( $p$ 's  $< 0.002$ ). Hypersomnia did not change significantly ( $p = 0.38$ ). Changes in total, mid-nocturnal and early-morning insomnia were independent of changes in depressive symptoms. Higher baseline hypersomnia predicted a greater decrease in depression severity following exercise treatment ( $p = 0.0057$ ). No significant moderating effect of any baseline sleep on change in depression severity was observed. There were no significant differences between exercise treatment groups on total insomnia or any individual sleep item. **CONCLUSIONS:** Exercise augmentation resulted in improvements in self-reported sleep quality in patients with non-remitted MDD. Given the prevalence of insomnia as a residual symptom following MDD treatment and the associated risk of MDD recurrence, exercise augmentation may have an important role in the treatment of MDD.

Samelson, E. J., S. L. Booth, et al. (2012). **"Calcium intake is not associated with increased coronary artery calcification: The framingham study."** *Am J Clin Nutr* 96(6): 1274-1280.  
<http://ajcn.nutrition.org/content/96/6/1274.abstract>

**Background:** Adequate calcium intake is known to protect the skeleton. However, studies that have reported adverse effects of calcium supplementation on vascular events have raised widespread concern. **Objective:** We assessed the association between calcium intake (from diet and supplements) and coronary artery calcification, which is a measure of atherosclerosis that predicts risk of ischemic heart disease independent of other risk factors. **Design:** This was an observational, prospective cohort study. **Participants** included 690 women and 588 men in the Framingham Offspring Study (mean age: 60 y; range: 36–83 y) who attended clinic visits and completed food-frequency questionnaires in 1998–2001 and underwent computed tomography scans 4 y later in 2002–2005. **Results:** The mean age-adjusted coronary artery-calcification Agatston score decreased with increasing total calcium intake, and the trend was not significant after adjustment for age, BMI, smoking, alcohol consumption, vitamin D-supplement use, energy intake, and, for women, menopause status and estrogen use. Multivariable-adjusted mean Agatston scores were 2.36, 2.52, 2.16, and 2.39 ( $P$ -trend = 0.74) with an increasing quartile of total calcium intake in women and 4.32, 4.39, 4.19, and 4.37 ( $P$ -trend = 0.94) in men, respectively. Results were similar for dietary calcium and calcium supplement use. **Conclusions:** Our study does not support the hypothesis that high calcium intake increases coronary artery calcification, which is an important measure of atherosclerosis burden. The evidence is not sufficient to modify current recommendations for calcium intake to protect skeletal health with respect to vascular calcification risk.

Shaeer, O. and K. Shaer (2012). **"The global online sexuality survey (goss): The united states of america in 2011. Chapter i: Erectile dysfunction among english-speakers."** *The Journal of Sexual Medicine* 9(12): 3018-3027.  
<http://dx.doi.org/10.1111/j.1743-6109.2012.02976.x>

**Introduction.** The Global Online Sexuality Survey (GOSS) is a worldwide epidemiologic study of sexuality and sexual disorders, based on validated questionnaires and applying age adjustment to the World Standard Population (WSP) by the World Health Organization. In 2010, the first report of GOSS came from the Middle East, describing an erectile dysfunction (ED) prevalence rate of 47%. **Aim.** This report studies the prevalence rate of ED in the United States as of 2011–2012 and evaluates risk factors for ED. **Main Outcome Measures.** Prevalence of ED. **Methods.** GOSS was randomly deployed to English-speaking male web surfers in the United States via paid advertising on Facebook, comprising 146 questions including the abbreviated 5-item International Index of Erectile Function. **Results.** Two thousand twenty-two males participated; with a mean age was 52.38 years  $\pm$  14.5. Prevalence of ED was 37.7%, adjusted to 33.7% according to WSP, comparable across ethnic groups. The following risk factors were associated with higher risk for ED: diabetes mellitus, hypertension with and without antihypertensive treatment, coronary heart disease, obesity (defined by body mass index), difficult micturition, subjectively reported depression, interpersonal distress, subjectively reported impotence, in addition to novel factors such as subjectively reported premature ejaculation (PE) and concerns over genital size (not a smaller penis per se), low libido, and irregular coitus. Frequency of smoking and alcohol were not associated with higher prevalence of ED, although duration of smoking was. **Conclusion.** Adjusted to WSP, prevalence rate of ED in the United States of America is 33.7% in the year 2011, in contrast to the adjusted prevalence in the Middle East (47%). Most of the classical risk factors for ED play the same role in the United States and the World, including diabetes, hypertension, and aging. Concerns over genital size and PE are emerging risk factors for ED.

Sheldon, K. and J. Hilpert (2012). **"The balanced measure of psychological needs (bmpn) scale: An alternative domain general measure of need satisfaction."** *Motivation and Emotion* 36(4): 439-451. <http://dx.doi.org/10.1007/s11031-012-9279-4>

Psychological need constructs have received increased attention within self-determination theory research. Unfortunately, the most widely used need-satisfaction measure, the Basic Psychological Needs Scale (BPNS; Gagné in *Motiv Emot* 27:199-223, 2003), has been found to be problematic (Johnston and Finney in *Contemp Educ Psychol* 35:280-296, 2010). In the current study, we formally describe an alternate measure, the Balanced Measure of Psychological Needs (BMPN). We explore the factor structure of student responses to both the BPNS and the BMPN, followed by an empirical comparison of the BPNS to the BMPN as predictors of relevant outcomes. For both scales, we tested a model specifying three latent need factors (autonomy, competence, and relatedness) and two latent method factors (satisfaction and dissatisfaction). By specifying and comparing a series of nested confirmatory factor analytic models, we examine the theoretical structure of the need satisfaction variables and produce evidence for convergent and discriminant validity of the posited constructs. The results of our examination suggest that the three need variables should not be combined into one general need factor and may have separate satisfaction and dissatisfaction dimensions. Our model comparisons also suggest the BMPN may be an improved instrument for SDT researchers.

Shim, S. and A. Ryan (2012). **"What do students want socially when they arrive at college? Implications of social achievement goals for social behaviors and adjustment during the first semester of college."** *Motivation and Emotion* 36(4): 504-515. <http://dx.doi.org/10.1007/s11031-011-9272-3>

This study investigated if the social achievement goals that students endorsed at the beginning of their freshman year were associated with social behaviors and adjustment 6 months later (N = 276; 52% female). Students were recruited from a residential hall and Resident Advisors provided multi-dimensional assessments of students' social behaviors. A social development goal (a focus on improving social skills and relationships) promoted adjustment, indicated by a positive association with overall social competence. A social demonstration-avoid goal (a focus on avoiding negative judgments) hindered adjustment, indicated by negative associations with overall social competence, popularity and prosocial behavior and positive associations with anxious and internalizing behavior. A social demonstration-approach goal (a focus on gaining positive judgments) had benefits, as shown by positive associations with overall social competence and popularity, and negative associations with anxious behavior, but also drawbacks for adjustment, as shown by a positive association with aggression.

Sparenberg, P., S. Topolinski, et al. (2012). **"Minimal mimicry: Mere effector matching induces preference."** *Brain and Cognition* 80(3): 291-300. <http://www.sciencedirect.com/science/article/pii/S0278262612001133>

Both mimicking and being mimicked induces preference for a target. The present experiments investigate the minimal sufficient conditions for this mimicry-preference link to occur. We argue that mere effector matching between one's own and the other person's movement is sufficient to induce preference, independent of which movement is actually performed. In Experiments 1 and 2, participants moved either their arms or legs, and watched avatars that moved either their arms or legs, respectively, without any instructions to mimic. The executed movements themselves and their pace were completely different between participants (fast circular movements) and targets (slow linear movements). Participants preferred avatars that moved the same body part as they did over avatars that moved a different body part. In Experiment 3, using human targets and differently paced movements, movement similarity was manipulated in addition to effector overlap (moving forward-backward or sideways with arms or legs, respectively). Only effector matching, but not movement matching, influenced preference ratings. These findings suggest that mere effector overlap is sufficient to trigger preference by mimicry. (And see Christian Jarrett's *BPS Research Digest* comments on the article at <http://www.bps-research-digest.blogspot.co.uk/2012/12/for-mimicry-to-flatter-its-all-about.html>).

Talegawkar, S. A., S. Bandinelli, et al. (2012). **"A higher adherence to a mediterranean-style diet is inversely associated with the development of frailty in community-dwelling elderly men and women."** *The Journal of Nutrition* 142(12): 2161-2166. <http://jn.nutrition.org/content/142/12/2161.abstract>

Adherence to a Mediterranean-style diet is associated with a lower risk for mortality, cognitive decline, and dementia. Whether adherence to a Mediterranean-style diet protects against age-related frailty is unclear. Therefore, our objective was to examine the association between a Mediterranean-style diet with the risk of frailty in community-dwelling older persons. We conducted longitudinal analyses using data from 690 community-living persons ( $\geq 65$  y) who were randomly selected from a population registry in Tuscany, Italy. Participants of the Invecchiare in Chianti study of aging completed the baseline examination in 1998-2000 and were re-examined at least once over 6 y. Adherence to a Mediterranean-style diet (scored 0-9, modeled categorically as  $\leq 3$ , 4-5, and  $\geq 6$ ) was computed from the European Prospective Investigation into Cancer and nutrition FFQ previously validated in this cohort. Frailty was defined as having at least 2 of the following criteria: poor muscle strength, feeling of exhaustion, low walking speed, and low physical activity. After a 6-y follow-up, higher adherence (score  $\geq 6$ ) to a Mediterranean-style diet was associated with lower odds of developing frailty [OR = 0.30 (95% CI: 0.14, 0.66)] compared with those with lower adherence (score  $\leq 3$ ). A higher adherence to a Mediterranean-style diet at baseline was also associated with a lower risk of low physical activity (OR = 0.62; 95% CI: 0.40, 0.96) and low walking speed [OR = 0.48 (95% CI: 0.27, 0.86)] but not with feelings of exhaustion and poor muscle strength. In community-dwelling older adults, higher adherence to a Mediterranean-style diet was inversely associated with the development of frailty.

Tarabulsky, G. M., S. Larose, et al. (2012). **"Attachment states of mind in late adolescence and the quality and course of romantic relationships in adulthood."** *Attachment & Human Development* 14(6): 621-643. <http://dx.doi.org/10.1080/14616734.2012.728358>

(Free full text available) The purpose of this study was to examine the longitudinal relations between attachment state of mind in late adolescence and romantic relationships in adulthood. Participants were drawn from two independent studies that were conducted respectively in 1992 and 1996 and that involved the administration of the Adult Attachment Interview (AAI) to 167 college students. They were followed-up in 2007 (N = 99) to investigate different aspects of their romantic relationships since college. Those who had shown greater preoccupation with attachment in the AAI were more likely to be single in adulthood and to report romantic relationships of shorter length. In addition, they reported lower levels of intimacy, commitment, and passion in their current or recent romantic relationships. Dismissing tendencies were associated with higher levels of perceived passion in romantic relationships. Most of these associations remained significant after controlling for intervening life events, different dimensions of individual adjustment, socio-economic status, as well as probable life events derived from the AAI.

van Dam, D. S., E. van der Ven, et al. (2012). **"Childhood bullying and the association with psychosis in non-clinical and clinical samples: A review and meta-analysis."** *Psychological Medicine* 42(12): 2463-2474. <http://dx.doi.org/10.1017/S0033291712000360>

Background Approximately 11% of schoolchildren are bullied on a regular basis. It has been argued that continuous exposure to stress is related to the development of psychotic symptoms. The current study sought to investigate whether being bullied in childhood is related to the development of psychotic symptoms. Method A search of PubMed, PsycINFO and EMBASE was conducted. The reference lists of included papers were searched to identify other eligible papers. A meta-analysis was performed on a subgroup of studies. Results We found four clinical and 10 general population studies that met inclusion criteria. The results of the clinical studies were mixed. However, the results of the non-clinical studies provided more consistent evidence that school bullying is related to the development of non-clinical psychotic symptoms. Stronger associations were found with increased frequency and severity and longer duration of being bullied. We performed a meta-analysis on seven population-based studies, yielding unadjusted and adjusted odds ratios (ORs) of 2.7 [95% confidence interval (CI) 2.1–3.6] and 2.3 (95% CI 1.5–3.4) respectively. Conclusions Although there is some evidence of an association between bullying and psychosis in clinical samples, the research is too sparse to draw any firm conclusions. However, population-based non-clinical studies support the role of bullying in the development of psychotic symptoms later in life. These findings are consistent with findings of an increased risk of psychotic symptoms among those exposed to other types of abuse.

Verduyn, P., I. Van Mechelen, et al. (2012). **"The relationship between self-distancing and the duration of negative and positive emotional experiences in daily life."** *Emotion* 12(6): 1248-1263. <http://www.ncbi.nlm.nih.gov/pubmed/22642344>

Extant research suggests that self-distancing facilitates adaptive self-reflection of negative emotional experiences. However, this work operationalizes adaptive self-reflection in terms of a reduction in the intensity of negative emotion, ignoring other important aspects of emotional experience such as emotion duration. Moreover, prior research has predominantly focused on how self-distancing influences emotional reactivity in response to reflecting on negative experiences, leaving open questions concerning how this process operates in the context of positive experiences. We addressed these issues by examining the relationship between self-distancing and the duration of daily negative and positive emotions using a daily diary methodology. Discrete-time survival analyses revealed that reflecting on both daily negative (Studies 1 and 2) and positive events (Study 2) from a self-distanced perspective was associated with shorter emotions compared with reflecting on such events from a self-immersed perspective. The basic science and clinical implications of these findings are discussed.

Vila, M., T. Kramer, et al. (2012). **"Abdominal pain in british young people: Associations, impairment and health care use."** *Journal of Psychosomatic Research* 73(6): 437-442.

<http://www.sciencedirect.com/science/article/pii/S0022399912002474>

Objective To assess the frequency and associations of abdominal pain in a sample of British secondary school young people and to examine predictors of impairment and health care use. Methods Cross-sectional study of young people aged 11–16 years that completed questionnaires documenting abdominal pain, related impairment and health care consultations. They also provided information detailing other physical symptoms, health problems and mental health status. Results 1173 students completed questionnaires; 598 (53%) reported abdominal pains in the previous 3 months (15% more than once a week). Pains were significantly linked to reporting medical illness, to high levels of a broad range of physical symptoms and with students deeming these symptoms to be stress/mood sensitive. They were also linked to depressive and other emotional and behavioural problems and with medical help seeking (seeing a health professional in the previous year and contact ever with mental health practitioners). Considerable impairment was reported by 36%; this was independently predicted by abdominal pain frequency, higher levels of concurrent physical symptoms and symptom stress/mood sensitivity. In 18% of students the abdominal pains had led to medical consultations; this was independently predicted by pain related impairment. Conclusions Frequent abdominal pains are common in British secondary school adolescents; they are linked to emotional symptoms and are often impairing and lead to medical consultations. Impairment was associated not only to pain frequency but also to reporting other physical symptoms and symptom stress/mood sensitivity, and impairment was a strong predictor of medical help seeking.

Whitebird, R. R., M. Kreitzer, et al. (2012). **"Mindfulness-based stress reduction for family caregivers: A randomized controlled trial."** *Gerontologist*. <http://www.ncbi.nlm.nih.gov/pubmed/23070934>

PURPOSE: Caring for a family member with dementia is associated with chronic stress, which can have significant deleterious effects on caregivers. The purpose of the Balance Study was to compare a mindfulness-based stress reduction (MBSR) intervention to a community caregiver education and support (CCES) intervention for family caregivers of people with dementia. DESIGN AND METHODS: We randomly assigned 78 family caregivers to an MBSR or a CCES intervention, matched for time and attention. Study participants attended 8 weekly intervention sessions and participated in home-based practice. Surveys were completed at baseline, postintervention, and at 6 months. Participants were 32- to 82-year-old predominately non-Hispanic White women caring for a parent with dementia. RESULTS: MBSR was more effective at improving overall mental health, reducing stress, and decreasing depression than CCES. Both interventions improved caregiver mental health and were similarly effective at improving anxiety, social support, and burden. IMPLICATIONS: MBSR could reduce stress and improve mental health in caregivers of family members with dementia residing in the community.

Wiley (2012). **"Virtual issue: Bullying."** *General Psychology*.

[http://onlinelibrary.wiley.com/subject/code/000104/homepage/virtual\\_issue\\_bullying.htm#Long\\_Term\\_Effects](http://onlinelibrary.wiley.com/subject/code/000104/homepage/virtual_issue_bullying.htm#Long_Term_Effects)

A collection of articles & book chapters on bullying brought together as a resource by Wiley publishers - includes "Bullying in the digital age", "Bullying in the workplace", "Bystanders & witnesses", "Risk factors", "Long-term effects" and "Prevention and intervention".

Wright, C., S. H. Richards, et al. (2012). **"Multisource feedback in evaluating the performance of doctors: The example of the uk general medical council patient and colleague questionnaires."** *Academic Medicine* 87(12):

10.1097/ACM.1090b1013e3182724cc3182720.

[http://journals.lww.com/academicmedicine/Fulltext/publishahead/Multisource\\_Feedback\\_in\\_Evaluating\\_the\\_Performance.99525.aspx](http://journals.lww.com/academicmedicine/Fulltext/publishahead/Multisource_Feedback_in_Evaluating_the_Performance.99525.aspx)

Purpose: Internationally, there is increasing interest in monitoring and evaluating doctors' professional practice. Multisource feedback (MSF) offers one way of collecting information about doctors' performance. The authors investigated the psychometric properties of two questionnaires developed for this purpose and explored the biases that may exist within data collected via such instruments. Method: A cross-sectional study was conducted in 11 UK health care organizations during 2008–2011. Patients (n = 30,333) and colleagues (n = 17,012) rated the professional performance of 1,065 practicing doctors, using the General Medical Council Patient Questionnaire (PQ) and Colleague Questionnaire (CQ). The psychometric properties of the questionnaires were assessed, and regression modeling was used to explore factors that influenced patient and colleague responses on the core questionnaire items. Results: Although the questionnaires demonstrated satisfactory internal consistency, test-retest reliability, and convergent validity, patient and colleague ratings were highly skewed toward favorable impressions of doctor performance. At least 34 PQs and 15 CQs were required to achieve acceptable reliability (G > 0.70). Item ratings were influenced by characteristics of the patient and colleague respondents and the context in which their feedback was provided.



Conclusions: The PQ and CQ are acceptable for the provision of formative feedback on a doctor's professional practice within an appraisal process. However, biases identified in the questionnaire data suggest that caution is required when interpreting and acting on this type of information. MSF derived from these questionnaires should not be used in isolation to inform decisions about a doctor's fitness to practice medicine.