

34 bhma abstracts, august '13

Thirty four abstracts covering a multitude of stress, health & wellbeing related subjects including therapeutic alliance in psychotherapy, infections & subsequent mood disorders, the changing pattern of disease prevalence, conflict reappraisal & benefits for marriage, improved mortality rates for coffee & tea drinkers, burnout in medical students, psychedelics & mental health, the benefits of friendships between heterosexual women & gay men, and much more.

(Arnow, Steidtmann et al. 2013; Benros, Waltoft et al. 2013; Briggs and Killen 2013; Butterworth, Leach et al. 2013; Collaborators 2013; Cuijpers, Huibers et al. 2013; Cuijpers, Sijbrandij et al. 2013; Delpriore and Hill 2013; Fetterman and Robinson 2013; Finkel, Slotter et al. 2013; Gale, Booth et al. 2013; Gardener, Rundek et al. 2013; Harrar and Spence 2013; Hurley and Kwon 2013; Ishak, Nikraves et al. 2013; Jokela, Batty et al. 2013; Kogan, Gruber et al. 2013; Kokko, Tolvanen et al. 2013; Krebs and Johansen 2013; Kross, Verduyn et al. 2013; Kwang, Crockett et al. 2013; McCrae, Chan et al. 2013; Muckelbauer, Sarganas et al. 2013; Pineda and Dadds 2013; Roepke 2013; Rosette and Tost 2013; Russell, DelPriore et al. 2013; Scott, Alonso et al. 2013; Van Doesum, Van Lange et al. 2013; Wagner, Gerstorf et al. 2013; Whiteford, Degenhardt et al. 2013; Whiteford, Harris et al. 2013; Yeager, Walton et al. 2013; Yeager, Purdie-Vaughns et al. 2013)

Arnow, B. A., D. Steidtmann, et al. (2013). **"The relationship between the therapeutic alliance and treatment outcome in two distinct psychotherapies for chronic depression."** *J Consult Clin Psychol* 81(4): 627-638.
<http://www.ncbi.nlm.nih.gov/pubmed/23339536>

OBJECTIVE: This study tested whether the quality of the patient-rated working alliance, measured early in treatment, predicted subsequent symptom reduction in chronically depressed patients. Secondly, the study assessed whether the relationship between early alliance and response to treatment differed between patients receiving cognitive behavioral analysis system of psychotherapy (CBASP) vs. brief supportive psychotherapy (BSP). **METHOD:** 395 adults (57% female; Mage = 46; 91% Caucasian) who met criteria for chronic depression and did not fully remit during a 12-week algorithm-based, open-label pharmacotherapy trial were randomized to receive either 16-20 sessions of CBASP or BSP in addition to continued, algorithm-based antidepressant medication. Of these, 224 patients completed the Working Alliance Inventory-Short Form at Weeks 2 or 4 of treatment. Blind raters assessed depressive symptoms at 2-week intervals across treatment using the Hamilton Rating Scale for Depression. Linear mixed models tested the association between early alliance and subsequent symptom ratings while accounting for early symptom change. **RESULTS:** A more positive early working alliance was associated with lower subsequent symptom ratings in both the CBASP and BSP, $F(1, 1236) = 62.48, p < .001$. In addition, the interaction between alliance and psychotherapy type was significant, such that alliance quality was more strongly associated with symptom ratings among those in the CBASP treatment group, $F(1, 1234) = 8.31, p = .004$. **CONCLUSIONS:** The results support the role of the therapeutic alliance as a predictor of outcome across dissimilar treatments for chronic depression. Contrary to expectations, the therapeutic alliance was more strongly related to outcome in CBASP, the more directive of the 2 therapies.

Benros, M. E., B. L. Waltoft, et al. (2013). **"Autoimmune diseases and severe infections as risk factors for mood disorders: A nationwide study."** *JAMA Psychiatry* 70(8): 812-820. <http://dx.doi.org/10.1001/jamapsychiatry.2013.1111>

Importance Mood disorders frequently co-occur with medical diseases that involve inflammatory pathophysiologic mechanisms. Immune responses can affect the brain and might increase the risk of mood disorders, but longitudinal studies of comorbidity are lacking. **Objective** To estimate the effect of autoimmune diseases and infections on the risk of developing mood disorders. **Design** Nationwide, population-based, prospective cohort study with 78 million person-years of follow-up. Data were analyzed with survival analysis techniques and adjusted for calendar year, age, and sex. **Setting** Individual data drawn from Danish longitudinal registers. **Participants** A total of 3.56 million people born between 1945 and 1996 were followed up from January 1, 1977, through December 31, 2010, with 91 637 people having hospital contacts for mood disorders. **Main Outcomes and Measures** The risk of a first lifetime diagnosis of mood disorder assigned by a psychiatrist in a hospital, outpatient clinic, or emergency department setting. Incidence rate ratios (IRRs) and accompanying 95% CIs are used as measures of relative risk. **Results** A prior hospital contact because of autoimmune disease increased the risk of a subsequent mood disorder diagnosis by 45% (IRR, 1.45; 95% CI, 1.39-1.52). Any history of hospitalization for infection increased the risk of later mood disorders by 62% (IRR, 1.62; 95% CI, 1.60-1.64). The 2 risk factors interacted in synergy and increased the risk of subsequent mood disorders even further (IRR, 2.35; 95% CI, 2.25-2.46). The number of infections and autoimmune diseases increased the risk of mood disorders in a dose-response relationship. Approximately one-third (32%) of the participants diagnosed as having a mood disorder had a previous hospital contact because of an infection, whereas 5% had a previous hospital contact because of an autoimmune disease. **Conclusions and Relevance** Autoimmune diseases and infections are risk factors for subsequent mood disorder diagnosis. These associations seem compatible with an immunologic hypothesis for the development of mood disorders in subgroups of patients.

Briggs, J. P. and J. Killen (2013). **"Perspectives on complementary and alternative medicine research."** *JAMA* 310(7): 691-692. <http://dx.doi.org/10.1001/jama.2013.6540>

For the last 2 decades, the phrase "complementary and alternative medicine" has been used to describe a wide array of treatments, health practices, and practitioner disciplines with historical roots outside conventional medicine. Examples include ancient practices such as acupuncture; herbal remedies; visits to complementary clinicians including naturopaths, homeopaths, and chiropractors; and meditative practices such as mindfulness, yoga, and tai chi. Data from the 2007 National Health Interview Survey show that about 40% of US residents integrate 1 or more of these unconventional health practices into their personal health care, spending about \$34 billion per year out of pocket.

Butterworth, P., L. S. Leach, et al. (2013). **"Common mental disorders, unemployment and psychosocial job quality: Is a poor job better than no job at all?"** *Psychological Medicine* 43(08): 1763-1772.
<http://dx.doi.org/10.1017/S0033291712002577>

Background Employment is associated with health benefits over unemployment, but the psychosocial characteristics of work also influence health. There has, however, been little research contrasting the prevalence of psychiatric disorders among people who are unemployed with those in jobs of differing psychosocial quality. **Method** Analysis of data from the English Adult Psychiatric Morbidity Survey (APMS) considered the prevalence of common mental disorders (CMDs) among 2603 respondents aged between 21 and 54 years who were either (i) employed or (ii) unemployed and looking for work at the time of interview in 2007. Quality of work was assessed by the number of adverse psychosocial job conditions reported (low control, high demands, insecurity and low job esteem). **Results** The prevalence of CMDs was similar for those respondents who were unemployed and those in the poorest quality jobs. This pattern remained after controlling for relevant demographic and socio-economic covariates. **Conclusions** Although employment is thought to promote mental health and well-being, work of poor psychosocial

quality is not associated with any better mental health than unemployment. Policy efforts to improve community mental health should consider psychosocial job quality in conjunction with efforts to increase employment rates.

Collaborators, U. B. o. D. (2013). **"The state of US health, 1990-2010: Burden of diseases, injuries, and risk factors."** *JAMA* 310(6): 591-608. <http://dx.doi.org/10.1001/jama.2013.13805>

Importance Understanding the major health problems in the United States and how they are changing over time is critical for informing national health policy. **Objectives** To measure the burden of diseases, injuries, and leading risk factors in the United States from 1990 to 2010 and to compare these measurements with those of the 34 countries in the Organisation for Economic Co-operation and Development (OECD) countries. **Design** We used the systematic analysis of descriptive epidemiology of 291 diseases and injuries, 1160 sequelae of these diseases and injuries, and 67 risk factors or clusters of risk factors from 1990 to 2010 for 187 countries developed for the Global Burden of Disease 2010 Study to describe the health status of the United States and to compare US health outcomes with those of 34 OECD countries. Years of life lost due to premature mortality (YLLs) were computed by multiplying the number of deaths at each age by a reference life expectancy at that age. Years lived with disability (YLDs) were calculated by multiplying prevalence (based on systematic reviews) by the disability weight (based on population-based surveys) for each sequela; disability in this study refers to any short- or long-term loss of health. Disability-adjusted life-years (DALYs) were estimated as the sum of YLDs and YLLs. Deaths and DALYs related to risk factors were based on systematic reviews and meta-analyses of exposure data and relative risks for risk-outcome pairs. Healthy life expectancy (HALE) was used to summarize overall population health, accounting for both length of life and levels of ill health experienced at different ages. **Results** US life expectancy for both sexes combined increased from 75.2 years in 1990 to 78.2 years in 2010; during the same period, HALE increased from 65.8 years to 68.1 years. The diseases and injuries with the largest number of YLLs in 2010 were ischemic heart disease, lung cancer, stroke, chronic obstructive pulmonary disease, and road injury. Age-standardized YLL rates increased for Alzheimer disease, drug use disorders, chronic kidney disease, kidney cancer, and falls. The diseases with the largest number of YLDs in 2010 were low back pain, major depressive disorder, other musculoskeletal disorders, neck pain, and anxiety disorders. As the US population has aged, YLDs have comprised a larger share of DALYs than have YLLs. The leading risk factors related to DALYs were dietary risks, tobacco smoking, high body mass index, high blood pressure, high fasting plasma glucose, physical inactivity, and alcohol use. Among 34 OECD countries between 1990 and 2010, the US rank for the age-standardized death rate changed from 18th to 27th, for the age-standardized YLL rate from 23rd to 28th, for the age-standardized YLD rate from 5th to 6th, for life expectancy at birth from 20th to 27th, and for HALE from 14th to 26th. **Conclusions and Relevance** From 1990 to 2010, the United States made substantial progress in improving health. Life expectancy at birth and HALE increased, all-cause death rates at all ages decreased, and age-specific rates of years lived with disability remained stable. However, morbidity and chronic disability now account for nearly half of the US health burden, and improvements in population health in the United States have not kept pace with advances in population health in other wealthy nations.

Cuijpers, P., M. Huibers, et al. (2013). **"How much psychotherapy is needed to treat depression? A meta-regression analysis."** *J Affect Disord* 149(1-3): 1-13. <http://www.ncbi.nlm.nih.gov/pubmed/23528438>

BACKGROUND: Although psychotherapies are effective in the treatment of adult depression it is not clear how this treatment effect is related to amount, frequency and intensity of therapy. **METHODS:** To fill this gap in knowledge, the present meta-regression analysis examined the association between the effects of psychotherapy for adult depression and several indicators of amount, frequency and intensity of therapy. The analysis included 70 studies (92 comparisons) with 5403 patients, in which individual psychotherapy was compared with a control group (e.g. waiting list, care-as-usual). **RESULTS:** There was only a small association between number of therapy sessions and effect size, and this association was no longer significant when the analysis adjusted for other characteristics of the studies. The multivariable analyses also found no significant association with the total contact time or duration of the therapy. However, there was a strong association between number of sessions per week and effect size. An increase from one to two sessions per week increased the effect size with $g=0.45$, while keeping the total number of treatment sessions constant. **DISCUSSION:** More research is needed to establish the robustness of this finding. Based on these findings, it may be advisable to concentrate psychotherapy sessions within a brief time frame.

Cuijpers, P., M. Sijbrandij, et al. (2013). **"The efficacy of psychotherapy and pharmacotherapy in treating depressive and anxiety disorders: A meta-analysis of direct comparisons."** *World Psychiatry* 12(2): 137-148. <http://www.ncbi.nlm.nih.gov/pubmed/23737423>

Although psychotherapy and antidepressant medication are efficacious in the treatment of depressive and anxiety disorders, it is not known whether they are equally efficacious for all types of disorders, and whether all types of psychotherapy and antidepressants are equally efficacious for each disorder. We conducted a meta-analysis of studies in which psychotherapy and antidepressant medication were directly compared in the treatment of depressive and anxiety disorders. Systematic searches in bibliographical databases resulted in 67 randomized trials, including 5,993 patients that met inclusion criteria, 40 studies focusing on depressive disorders and 27 focusing on anxiety disorders. The overall effect size indicating the difference between psychotherapy and pharmacotherapy after treatment in all disorders was $g=0.02$ (95% CI: -0.07 to 0.10), which was not statistically significant. Pharmacotherapy was significantly more efficacious than psychotherapy in dysthymia ($g=0.30$), and psychotherapy was significantly more efficacious than pharmacotherapy in obsessive-compulsive disorder ($g=0.64$). Furthermore, pharmacotherapy was significantly more efficacious than non-directive counseling ($g=0.33$), and psychotherapy was significantly more efficacious than pharmacotherapy with tricyclic antidepressants ($g=0.21$). These results remained significant when we controlled for other characteristics of the studies in multivariate meta-regression analysis, except for the differential effects in dysthymia, which were no longer statistically significant.

Delpriore, D. J. and S. E. Hill (2013). **"The effects of paternal disengagement on women's sexual decision making: An experimental approach."** *J Pers Soc Psychol* 105(2): 234-246. <http://www.ncbi.nlm.nih.gov/pubmed/23713696>

An abundance of research demonstrates a robust association between father absence - or low-quality paternal involvement - and daughters' accelerated sexual development, promiscuity, and sexual risk taking. Although recent natural experiments provide support for fathers playing a causal role in these outcomes, these effects have not been examined using a randomized experimental design to eliminate genetic and environmental confounds inherent in previous studies. We redressed this empirical gap by experimentally testing the effects of primed paternal disengagement cues on women's sexual decision making. Across 5 experiments, reminders of paternal disengagement increased women's activation of sexual thoughts (Experiment 1), sexual permissiveness (Experiments 2-4), and negativity toward condom use (Experiment 5). Moreover, these effects were specific to women's sexual decision making, as paternal disengagement cues failed to influence women's willingness to take nonsexual risks (Experiment 4) or men's risky sexual attitudes (Experiment 5). These results provide the first true experimental evidence supporting a causal relationship between paternal disengagement and changes in women's psychology that promote risky sexual behavior.

Fetterman, A. K. and M. D. Robinson (2013). **"Do you use your head or follow your heart? Self-location predicts personality, emotion, decision making, and performance."** *J Pers Soc Psychol* 105(2): 316-334. <http://www.ncbi.nlm.nih.gov/pubmed/23773045>

The head is thought to be rational and cold, whereas the heart is thought to be emotional and warm. In 8 studies (total N = 725), we pursued the idea that such body metaphors are widely consequential. Study 1 introduced a novel individual difference variable, one asking people to locate the self in the head or the heart. Irrespective of sex differences, head-locators characterized themselves as rational, logical, and interpersonally cold, whereas heart-locators characterized themselves as emotional, feminine, and interpersonally warm (Studies 1-3). Study 4 showed that head-locators were more accurate in answering general knowledge questions and had higher grade point averages, and Study 5 showed that heart-locators were more likely to favor emotional over rational considerations in moral decision making. Study 6 linked self-locations to reactivity phenomena in daily life--for example, heart-locators experienced greater negative emotion on high stressor days. In Study 7, we manipulated attention to the head versus the heart and found that head-pointing facilitated intellectual performance, whereas heart-pointing led to emotional decision making. Study 8 replicated Study 3's findings with a nearly year-long delay between the self-location and outcome measures. The findings converge on the importance of head-heart metaphors for understanding individual differences in cognition, emotion, and performance.

Finkel, E. J., E. B. Slotter, et al. (2013). **"A brief intervention to promote conflict reappraisal preserves marital quality over time."** *Psychological Science* 24(8): 1595-1601. <http://pss.sagepub.com/content/24/8/1595.abstract>

(Downloadable in free full text from author's website - <http://faculty.wcas.northwestern.edu/eli-finkel/>) Marital quality is a major contributor to happiness and health. Unfortunately, marital quality normatively declines over time. We tested whether a novel 21-min intervention designed to foster the reappraisal of marital conflicts could preserve marital quality in a sample of 120 couples enrolled in an intensive 2-year study. Half of the couples were randomly assigned to receive the reappraisal intervention in Year 2 (following no intervention in Year 1); half were not. Both groups exhibited declines in marital quality over Year 1. This decline continued in Year 2 among couples in the control condition, but it was eliminated among couples in the reappraisal condition. This effect of the reappraisal intervention on marital quality over time was mediated through reductions in conflict-related distress over time. This study illustrates the potential of brief, theory-based, social-psychological interventions to preserve the quality of intimate relationships over time.

Gale, C. R., T. Booth, et al. (2013). **"Neuroticism and extraversion in youth predict mental wellbeing and life satisfaction 40 years later."** *Journal of Research in Personality* 47(6): 687-697. <http://www.sciencedirect.com/science/article/pii/S0092656613000901>

Neuroticism and Extraversion are linked with current wellbeing, but it is unclear whether these traits in youth predict wellbeing decades later. We applied structural equation modeling to data from 4583 people from the MRC National Survey of Health and Development. We examined the effects of Neuroticism and Extraversion at ages 16 and 26 years on mental wellbeing and life satisfaction at age 60-64 and explored the mediating roles of psychological and physical health. Extraversion had direct, positive effects on both measures of wellbeing. The impact of Neuroticism on both wellbeing and life satisfaction was largely indirect through susceptibility to psychological distress and physical health problems. Personality dispositions in youth have enduring influence on wellbeing assessed about 40 years later.

Gardener, H., T. Rundek, et al. (2013). **"Coffee and tea consumption are inversely associated with mortality in a multiethnic urban population."** *The Journal of Nutrition* 143(8): 1299-1308. <http://jn.nutrition.org/content/143/8/1299.abstract>

Coffee and tea are commonly consumed beverages. Inverse associations with mortality have been suggested for coffee and tea, but the relationships with cause-specific mortality are not well understood. We examined regular and decaffeinated coffee and tea in relation to mortality due to all causes, vascular, nonvascular, and cancer in the multi-ethnic, prospective, population-based Northern Manhattan Study. The study population included 2461 participants with diet data who were free of stroke, myocardial infarction, and cancer at baseline (mean age 68.30 ± 10.23 y, 36% men, 19% white, 23% black, 56% Hispanic). During a mean follow-up of 11 y, we examined the associations between coffee and tea consumption, assessed by food frequency questionnaire, and 863 deaths (342 vascular related and 444 nonvascular including 160 cancer deaths) using multivariable-adjusted Cox models. Coffee consumption was inversely associated with all-cause mortality [for each additional cup/d, HR = 0.93 (95% CI: 0.88, 0.99); P = 0.02]. Caffeinated coffee was inversely associated with all-cause mortality, driven by a strong protection among those who drank ≥4 cups/d. An inverse dose-response relationship between tea and all-cause mortality was suggested [for each additional cup/d, HR = 0.91 (95% CI: 0.84, 0.99); P = 0.01]. Coffee consumption ≥4/d was protective against nonvascular death [vs. <1/mo, HR = 0.57 (95% CI: 0.33, 0.97)] and tea consumption ≥2/d was protective against nonvascular death [HR = 0.63 (95% CI: 0.41, 0.95)] and cancer [HR = 0.33 (95% CI: 0.14, 0.80)]. There was a strong inverse association between coffee and vascular-related mortality among Hispanics only. Further study is needed, including investigation into the mechanisms and compounds in coffee and tea responsible for the inverse associations with mortality. The differential relationship between coffee and vascular death across race/ethnicity underscores the need for research in similar multi-ethnic cohorts including Hispanics.

Harrar, V. and C. Spence (2013). **"The taste of cutlery: How the taste of food is affected by the weight, size, shape, and colour of the cutlery used to eat it."** *Flavour* 2(1): 21. <http://www.flavourjournal.com/content/2/1/21>

(Available in free full text) BACKGROUND: Recent evidence has shown that changing the plateware can affect the perceived taste and flavour of food, but very little is known about visual and proprioceptive influences of cutlery on the response of consumers to the food sampled from it. In the present study, we report three experiments designed to investigate whether food tastes different when the visual and tactile properties of the plastic cutlery from which it is sampled are altered. We independently varied the weight, size, colour, and shape of cutlery. We assessed the impact of changing the sensory properties of the cutlery on participants' ratings of the sweetness, saltiness, perceived value, and overall liking of the food tasted from it. RESULTS: The results revealed that yoghurt was perceived as denser and more expensive when tasted from a lighter plastic spoon as compared to the artificially weighted spoons; the size of the spoon only interacted with the spoon-weight factor for the perceived sweetness of the yoghurt. The taste of the yoghurt was also affected by the colour of the cutlery, but these effects depended on the colour of the food as well, suggesting that colour contrast may have been responsible for the observed effects. Finally, we investigated the influence of the shape of the cutlery. The results showed that the food was rated as being saltiest when sampled from a knife rather than from a spoon, fork, or toothpick. CONCLUSIONS: Taken together, these results demonstrate that the properties of the cutlery can indeed affect people's taste perception of everyday foods, most likely when expectations regarding the cutlery or the food have been disconfirmed. We discuss these results in the context of changing environmental cues in order to modify people's eating habits.

Hurley, D. and P. Kwon (2013). **"Savoring helps most when you have little: Interaction between savoring the moment and uplifts on positive affect and satisfaction with life."** *Journal of Happiness Studies* 14(4): 1261-1271. <http://dx.doi.org/10.1007/s10902-012-9377-8>

Savoring the moment is a means of generating, prolonging, or intensifying positive emotions while a positive event is occurring. While the occurrence of positive events is integral to savoring the moment, there is a paucity of research examining the interaction of the two. This study examines the longitudinal interaction of savoring the moment and the number of everyday positive events (uplifts) that occur over 2 weeks on measures of positive affect and satisfaction with life. Significant interactions between savoring and uplifts were found, indicating that those participants with low levels of savoring and low numbers of uplifts were at risk, as they experienced low levels of both positive affect and satisfaction with life. The other three groups (high savoring/high uplifts, low savoring/high uplifts, high savoring/low uplifts) had similarly positive outcomes. The findings imply the utility of increasing savoring when individuals experience few positive events.

Ishak, W., R. Nikraves, et al. (2013). **"Burnout in medical students: A systematic review."** *Clin Teach* 10(4): 242-245. <http://www.ncbi.nlm.nih.gov/pubmed/23834570>

BACKGROUND: Burnout is a state of mental and physical exhaustion related to work or care-giving activities. Distress during medical school can lead to burnout, with significant consequences, particularly if burnout continues into residency and beyond. The authors reviewed literature pertaining to medical student burnout, its prevalence, and its relationship to personal, environmental, demographic and psychiatric factors. We ultimately offer some suggestions to address and potentially ameliorate the current dilemma posed by burnout during medical education. **METHODS:** A literature review was conducted using a PubMed/Medline, and PsycInfo search from 1974 to 2011 using the keywords: 'burnout', 'stress', 'well-being', 'self-care', 'psychiatry' and 'medical students'. Three authors agreed independently on the studies to be included in this review. **RESULTS:** The literature reveals that burnout is prevalent during medical school, with major US multi-institutional studies estimating that at least half of all medical students may be affected by burnout during their medical education. Studies show that burnout may persist beyond medical school, and is, at times, associated with psychiatric disorders and suicidal ideation. A variety of personal and professional characteristics correlate well with burnout. Potential interventions include school-based and individual-based activities to increase overall student well-being. **DISCUSSION:** Burnout is a prominent force challenging medical students' well-being, with concerning implications for the continuation of burnout into residency and beyond. To address this highly prevalent condition, educators must first develop greater awareness and understanding of burnout, as well as of the factors that lead to its development. Interventions focusing on generating wellness during medical training are highly recommended.

Jokela, M., G. D. Batty, et al. (2013). **"Personality and all-cause mortality: Individual-participant meta-analysis of 3,947 deaths in 76,150 adults."** *Am J Epidemiol* 178(5): 667-675. <http://www.ncbi.nlm.nih.gov/pubmed/23911610>

Personality may influence the risk of death, but the evidence remains inconsistent. We examined associations between personality traits of the five-factor model (extraversion, neuroticism, agreeableness, conscientiousness, and openness to experience) and the risk of death from all causes through individual-participant meta-analysis of 76,150 participants from 7 cohorts (the British Household Panel Survey, 2006-2009; the German Socio-Economic Panel Study, 2005-2010; the Household, Income and Labour Dynamics in Australia Survey, 2006-2010; the US Health and Retirement Study, 2006-2010; the Midlife in the United States Study, 1995-2004; and the Wisconsin Longitudinal Study's graduate and sibling samples, 1993-2009). During 444,770 person-years at risk, 3,947 participants (54.4% women) died (mean age at baseline = 50.9 years; mean follow-up = 5.9 years). Only low conscientiousness-reflecting low persistence, poor self-control, and lack of long-term planning-was associated with elevated mortality risk when taking into account age, sex, ethnicity/nationality, and all 5 personality traits. Individuals in the lowest tertile of conscientiousness had a 1.4 times higher risk of death (hazard ratio = 1.37, 95% confidence interval: 1.18, 1.58) compared with individuals in the top 2 tertiles. This association remained after further adjustment for health behaviors, marital status, and education. In conclusion, of the higher-order personality traits measured by the five-factor model, only conscientiousness appears to be related to mortality risk across populations.

Kogan, A., J. Gruber, et al. (2013). **"Too much of a good thing? Cardiac vagal tone's nonlinear relationship with well-being."** *Emotion* 13(4): 599-604. <http://www.ncbi.nlm.nih.gov/pubmed/23731433>

Parasympathetic regulation of heart rate through the vagus nerve-often measured as resting respiratory sinus arrhythmia or cardiac vagal tone (CVT)-is a key biological correlate of psychological well-being. However, recent theorizing has suggested that many biological and psychological processes can become maladaptive when they reach extreme levels. This raises the possibility that CVT might not have an unmitigated positive relationship with well-being. In line with this reasoning, across 231 adult participants (Mage = 40.02 years; 52% female), we found that CVT was quadratically related to multiple measures of well-being, including life satisfaction and depressive symptoms. Individuals with moderate CVT had higher well-being than those with low or high CVT. These results provide the first direct evidence of a nonlinear relationship between CVT and well-being, adding to a growing body of research that has suggested some biological processes may cease being adaptive when they reach extreme levels.

Kokko, K., A. Tolvanen, et al. (2013). **"Associations between personality traits and psychological well-being across time in middle adulthood."** *Journal of Research in Personality* 47(6): 748-756. <http://www.sciencedirect.com/science/article/pii/S0092656613000950>

Associations of personality traits with psychological well-being (PWB) were analyzed across ages 33-50 as part of an ongoing Finnish longitudinal study (initial N = 369). Bivariate latent growth curve analyses indicated that a low initial level of neuroticism (.75) and high extraversion (.55) correlated strongly with a high level of PWB. Moreover, a high level of conscientiousness, openness, and agreeableness also correlated significantly with PWB. The change factor was significant only for openness: the higher the initial level of PWB, the higher the increase in openness from age 33-50. In comparison with emotional well-being, indicated by general life satisfaction, the associations of the personality traits with PWB were significantly stronger for neuroticism, extraversion, and openness.

Krebs, T. S. and P.-Ø. Johansen (2013). **"Psychedelics and mental health: A population study."** *PLoS ONE* 8(8): e63972. <http://dx.doi.org/10.1371/journal.pone.0063972>

(Available in free full text) **Background:** The classical serotonergic psychedelics LSD, psilocybin, mescaline are not known to cause brain damage and are regarded as non-addictive. Clinical studies do not suggest that psychedelics cause long-term mental health problems. Psychedelics have been used in the Americas for thousands of years. Over 30 million people currently living in the US have used LSD, psilocybin, or mescaline. **Objective:** To evaluate the association between the lifetime use of psychedelics and current mental health in the adult population. **Method:** Data drawn from years 2001 to 2004 of the National Survey on Drug Use and Health consisted of 130,152 respondents, randomly selected to be representative of the adult population in the United States. Standardized screening measures for past year mental health included serious psychological distress (K6 scale), mental health treatment (inpatient, outpatient, medication, needed but did not receive), symptoms of eight

psychiatric disorders (panic disorder, major depressive episode, mania, social phobia, general anxiety disorder, agoraphobia, posttraumatic stress disorder, and non-affective psychosis), and seven specific symptoms of non-affective psychosis. We calculated weighted odds ratios by multivariate logistic regression controlling for a range of sociodemographic variables, use of illicit drugs, risk taking behavior, and exposure to traumatic events. Results: 21,967 respondents (13.4% weighted) reported lifetime psychedelic use. There were no significant associations between lifetime use of any psychedelics, lifetime use of specific psychedelics (LSD, psilocybin, mescaline, peyote), or past year use of LSD and increased rate of any of the mental health outcomes. Rather, in several cases psychedelic use was associated with lower rate of mental health problems. Conclusion: We did not find use of psychedelics to be an independent risk factor for mental health problems.

Kross, E., P. Verduyn, et al. (2013). **"Facebook use predicts declines in subjective well-being in young adults."** *PLoS One* 8(8): e69841. <http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0069841>

(Freely available in full text) Over 500 million people interact daily with Facebook. Yet, whether Facebook use influences subjective well-being over time is unknown. We addressed this issue using experience-sampling, the most reliable method for measuring in-vivo behavior and psychological experience. We text-messaged people five times per day for two-weeks to examine how Facebook use influences the two components of subjective well-being: how people feel moment-to-moment and how satisfied they are with their lives. Our results indicate that Facebook use predicts negative shifts on both of these variables over time. The more people used Facebook at one time point, the worse they felt the next time we text-messaged them; the more they used Facebook over two-weeks, the more their life satisfaction levels declined over time. Interacting with other people "directly" did not predict these negative outcomes. They were also not moderated by the size of people's Facebook networks, their perceived supportiveness, motivation for using Facebook, gender, loneliness, self-esteem, or depression. On the surface, Facebook provides an invaluable resource for fulfilling the basic human need for social connection. Rather than enhancing well-being, however, these findings suggest that Facebook may undermine it.

Kwang, T., E. E. Crockett, et al. (2013). **"Men seek social standing, women seek companionship: Sex differences in deriving self-worth from relationships."** *Psychological Science* 24(7): 1142-1150. <http://pss.sagepub.com/content/24/7/1142.abstract>

Do men base their self-worth on relationships less than do women? In an assessment of lay beliefs, men and women alike indicated that men are less reliant on relationships as a source of self-worth than are women (Study 1). Yet relationships may make a different important contribution to the self-esteem of men. Men reported basing their self-esteem on their own relationship status (whether or not they were in a relationship) more than did women, and this link was statistically mediated by the perceived importance of relationships as a source of social standing (Studies 1 and 2). Finally, when relationship status was threatened, men displayed increased social-standing concerns, whereas women displayed increased interdependence concerns (Study 3). Together, these findings demonstrate that both men and women rely on relationships for self-worth, but that they derive self-esteem from relationships in different ways.

McCrae, R. R., W. Chan, et al. (2013). **"The inaccuracy of national character stereotypes."** *Journal of Research in Personality* 47(6): 831-842. <http://www.sciencedirect.com/science/article/pii/S0092656613001128>

Consensual stereotypes of some groups are relatively accurate, whereas others are not. Previous work suggesting that national character stereotypes are inaccurate has been criticized on several grounds. In this article we (a) provide arguments for the validity of assessed national mean trait levels as criteria for evaluating stereotype accuracy and (b) report new data on national character in 26 cultures from descriptions (N = 3323) of the typical male or female adolescent, adult, or old person in each. The average ratings were internally consistent and converged with independent stereotypes of the typical culture member, but were weakly related to objective assessments of personality. We argue that this conclusion is consistent with the broader literature on the inaccuracy of national character stereotypes.

Muckelbauer, R., G. Sarganas, et al. (2013). **"Association between water consumption and body weight outcomes: A systematic review."** *Am J Clin Nutr* 98(2): 282-299. <http://ajcn.nutrition.org/content/98/2/282.abstract>

Background: Drinking water is often applied as a dietary means for weight loss and overweight/obesity prevention, but no evidence-based recommendation exists for this indication. Objective: We summarized the existing evidence on the association between water consumption and body weight outcomes in adults of any body weight status. Design: In a systematic review, we retrieved studies from 4 electronic databases (MEDLINE, EMBASE, CINAHL, and COCHRANE), cross-references by PubMed functions and hand-searching, and experts' recommendations. Any type of study including adults aged >18 y that reported the association between daily water consumption and any weight-related outcome, such as body weight, body mass index, or body weight classifications, was eligible. Results: Of 4963 retrieved records, 11 original studies and 2 systematic reviews were included. In participants dieting for weight loss or maintenance, a randomized controlled trial, a nonrandomized controlled trial, and an observational longitudinal study showed that increased water consumption, in addition to a program for weight loss or maintenance, reduced body weight after 3-12 mo compared with such a program alone. In mixed-weight populations not primarily dieting for weight loss or maintenance, 2 short-term randomized trials showed no effect of water consumption on body weight; 6 cross-sectional studies showed inconsistent results. Conclusions: Studies of individuals dieting for weight loss or maintenance suggest a weight-reducing effect of increased water consumption, whereas studies in general mixed-weight populations yielded inconsistent results. The evidence for this association is still low, mostly because of the lack of good-quality studies.

Pineda, J. and M. R. Dadds (2013). **"Family intervention for adolescents with suicidal behavior: A randomized controlled trial and mediation analysis."** *Journal of the American Academy of Child & Adolescent Psychiatry* 52(8): 851-862. <http://www.sciencedirect.com/science/article/pii/S0890856713003420>

Objective Family processes are a risk factor for suicide but few studies target this domain. We evaluated the effectiveness of a family intervention, the Resourceful Adolescent Parent Program (RAP-P) in reducing adolescent suicidal behavior and associated psychiatric symptoms. Method A preliminary randomized controlled trial compared RAP-P plus Routine Care (RC) to RC only, in an outpatient psychiatric clinic for N = 48 suicidal adolescents and their parents. Key outcome measures of adolescent suicidality, psychiatric disability, and family functioning were completed at pre-treatment, 3-month, and 6-month follow-up. Results RAP-P was associated with high recruitment and retention, greater improvement in family functioning, and greater reductions in adolescents' suicidal behavior and psychiatric disability, compared to RC alone. Benefits were maintained at follow-up with a strong overall effect size. Changes in adolescent's suicidality were largely mediated by changes in family functioning. Conclusion The study provides preliminary evidence for the use of family-focused treatments for adolescent suicidal behavior in outpatient settings. Clinical trial registration information—Family intervention for adolescents with suicidal behaviour: A randomized controlled trial and mediation analysis; <http://anzctr.org/>; ACTRN12613000668707.

Roepke, A. M. (2013). **"Gains without pains? Growth after positive events."** *The Journal of Positive Psychology* 8(4): 280-291. <http://dx.doi.org/10.1080/17439760.2013.791715>

While past research suggests that people experience positive psychological changes after adverse events, little is known about psychological changes that happen after positive events. Adult participants (N=7605) went online to complete a new self-report instrument measuring positive psychological changes linked to positive events, changes that I provisionally call post-ecstatic growth. Factor analysis indicated that this growth happens in four domains: deeper spirituality, increased meaning and purpose in life, improved relationships, and greater self-esteem. Participants were particularly likely to report growth after events that evoked feelings of inspiration and meaning, and events that led them to see new opportunities.

Rosette, A. S. and L. P. Tost (2013). **"Perceiving social inequity: When subordinate-group positioning on one dimension of social hierarchy enhances privilege recognition on another."** *Psychological Science* 24(8): 1420-1427. <http://pss.sagepub.com/content/24/8/1420.abstract>

Researchers have suggested that viewing social inequity as dominant-group privilege (rather than subordinate-group disadvantage) enhances dominant-group members' support for social policies aimed at lessening such inequity. However, because viewing inequity as dominant-group privilege can be damaging to dominant-group members' self-images, this perspective is frequently resisted. In the research reported here, we explored the circumstances that enhance the likelihood of dominant-group members' viewing inequity as privilege. Because social hierarchies have multiple vertical dimensions, individuals may have high status on one dimension but low status on another. We predicted that occupying a subordinate position on one dimension of social hierarchy could enhance perceptions of one's own privilege on a different dimension of hierarchy, but that this tendency would be diminished among individuals who felt they had achieved a particularly high level of success. Results from three studies that considered gender-based and race-based hierarchies in organizational settings supported our hypothesis.

Russell, E. M., D. J. DelPriore, et al. (2013). **"Friends with benefits, but without the sex: Straight women and gay men exchange trustworthy mating advice."** *Evol Psychol* 11(1): 132-147. <http://www.ncbi.nlm.nih.gov/pubmed/23395685>

Although research has made progress in elucidating the benefits exchanged within same- and opposite-sex friendships formed between heterosexual men and women, it is less clear why straight women and gay men form close relationships with one another. The current experiments begin to address this question by exploring a potential benefit hypothesized to be uniquely available to straight women and gay men in the context of these friendships: trustworthy mating advice. Experiment 1 revealed that straight women perceive mating-relevant advice from a gay man to be more trustworthy than similar advice offered by a straight man or woman. Experiment 2 demonstrated that gay men perceive mating advice offered by a straight woman to be more trustworthy than advice offered by a lesbian woman or another gay man. Overall, the results provide initial experimental evidence that relationships between gay men and straight women may be characterized by a mutual exchange of mating-relevant benefits in the absence of sexual interest or competition.

Scott, K. M., J. Alonso, et al. (2013). **"Associations between DSM-IV mental disorders and onset of self-reported peptic ulcer in the world mental health surveys."** *Journal of Psychosomatic Research* 75(2): 121-127. <http://www.sciencedirect.com/science/article/pii/S0022399913001840>

Objective: Recent research demonstrating concurrent associations between mental disorders and peptic ulcers has renewed interest in links between psychological factors and ulcers. However, little is known about associations between temporally prior mental disorders and subsequent ulcer onset. Nor has the potentially confounding role of childhood adversities been explored. The objective of this study was to examine associations between a wide range of temporally prior DSM-IV mental disorders and subsequent onset of ulcer, without and with adjustment for mental disorder comorbidity and childhood adversities. Methods: Face-to-face household surveys conducted in 19 countries (n = 52,095; person years = 2,096,486). The Composite International Diagnostic Interview retrospectively assessed lifetime prevalence and age at onset of 16 DSM-IV mental disorders. Peptic ulcer onset was assessed in the same interview by self-report of physician's diagnosis and year of diagnosis. Survival analyses estimated associations between first onset of mental disorders and subsequent ulcer onset. Results: After comorbidity and sociodemographic adjustment, depression, social phobia, specific phobia, post-traumatic stress disorder, intermittent explosive disorder, alcohol and drug abuse disorders were significantly associated with ulcer onset (ORs 1.3-1.6). Increasing number of lifetime mental disorders was associated with ulcer onset in a dose-response fashion. These associations were only slightly attenuated by adjustment for childhood adversities. Conclusions: A wide range of mental disorders were linked with the self-report of subsequent peptic ulcer onset. These associations require confirmation in prospective designs, but are suggestive of a role for mental disorders in contributing to ulcer vulnerability, possibly through abnormalities in the physiological stress response associated with mental disorders.

Van Doesum, N. J., D. A. Van Lange, et al. (2013). **"Social mindfulness: Skill and will to navigate the social world."** *J Pers Soc Psychol* 105(1): 86-103. <http://www.ncbi.nlm.nih.gov/pubmed/23647176>

Although one may not always see it, social life often involves choices that make people act in ways that are mindful of others or not. We adopt an interdependence theoretical approach to the novel concept of social mindfulness, which we conceptualize in terms of other-regarding choices involving both skill (to see it, e.g., theory of mind, perspective taking) and will (to do it, e.g., empathic concern, prosocial orientation) to act mindfully toward another person's control over outcomes. We operationalized social mindfulness in a new social decision-making paradigm that focuses on leaving or limiting choice options for others that we tested across 7 studies. Studies 1a through 1c showed that people with other-oriented mindsets left interdependent others more choice than people with self-oriented and/or unspecified mindsets. Studies 2a and 2b revealed that people developed more favorable judgments of a socially mindful than of a socially unmindful person. Study 3 revealed that unknown others with trustworthy (vs. untrustworthy) faces were met with more social mindfulness. Study 4 revealed that social mindfulness could be traced in personality by being positively related to Honesty-Humility and Agreeableness (HEXACO Personality Inventory-Revised) as well as to Empathy (Interpersonal Reactivity Index) and a prosocial value orientation (SVO). Together, these studies contribute to explaining how social mindfulness can help people to navigate the social world by aiming to maximize other people's control over their situational outcomes.

Wagner, J., D. Gerstorf, et al. (2013). **"The nature and correlates of self-esteem trajectories in late life."** *J Pers Soc Psychol* 105(1): 139-153. <http://www.ncbi.nlm.nih.gov/pubmed/23627746>

Is it possible to maintain a positive perspective on the self into very old age? Empirical research so far is rather inconclusive, with some studies reporting substantial declines in self-esteem late in life, whereas others report relative stability into old age. In this article, we examine long-term change trajectories in self-esteem in old age and very old age and link them to key correlates in the health, cognitive, self-regulatory, and social domains. To do so, we estimated growth curve models over chronological age and time-to-death using 18-year longitudinal data from the Australian Longitudinal Study of Ageing (N = 1,215; age 65-103 years at first occasion; M = 78.8 years, SD = 5.9; women: 45% of sample). Results revealed that self-esteem was, on average, fairly stable with minor declines only emerging in advanced ages and at the very end of life.

Examination of the vast between-person differences revealed that lower cognitive abilities and lower perceived control independently related to lower self-esteem. Also, lower cognitive abilities were associated with steeper age-related and mortality-related self-esteem decrements. In our discussion, we consider a variety of challenges that potentially shape self-esteem late in life and highlight the need for more mechanism-oriented research to better understand the pathways underlying stability and change in self-esteem.

Whiteford, H. A., L. Degenhardt, et al. (2013). **"Global burden of disease attributable to mental and substance use disorders: Findings from the global burden of disease study 2010."** *The Lancet*(0). <http://www.sciencedirect.com/science/article/pii/S0140673613616116>

Background We used data from the Global Burden of Diseases, Injuries, and Risk Factors Study 2010 (GBD 2010) to estimate the burden of disease attributable to mental and substance use disorders in terms of disability-adjusted life years (DALYs), years of life lost to premature mortality (YLLs), and years lived with disability (YLDs). **Methods** For each of the 20 mental and substance use disorders included in GBD 2010, we systematically reviewed epidemiological data and used a Bayesian meta-regression tool, DisMod-MR, to model prevalence by age, sex, country, region, and year. We obtained disability weights from representative community surveys and an internet-based survey to calculate YLDs. We calculated premature mortality as YLLs from cause of death estimates for 1980–2010 for 20 age groups, both sexes, and 187 countries. We derived DALYs from the sum of YLDs and YLLs. We adjusted burden estimates for comorbidity and present them with 95% uncertainty intervals. **Findings** In 2010, mental and substance use disorders accounted for 183.9 million DALYs (95% UI 153.5 million–216.7 million), or 7.4% (6.2–8.6) of all DALYs worldwide. Such disorders accounted for 8.6 million YLLs (6.5 million–12.1 million; 0.5% [0.4–0.7] of all YLLs) and 175.3 million YLDs (144.5 million–207.8 million; 22.9% [18.6–27.2] of all YLDs). Mental and substance use disorders were the leading cause of YLDs worldwide. Depressive disorders accounted for 40.5% (31.7–49.2) of DALYs caused by mental and substance use disorders, with anxiety disorders accounting for 14.6% (11.2–18.4), illicit drug use disorders for 10.9% (8.9–13.2), alcohol use disorders for 9.6% (7.7–11.8), schizophrenia for 7.4% (5.0–9.8), bipolar disorder for 7.0% (4.4–10.3), pervasive developmental disorders for 4.2% (3.2–5.3), childhood behavioural disorders for 3.4% (2.2–4.7), and eating disorders for 1.2% (0.9–1.5). DALYs varied by age and sex, with the highest proportion of total DALYs occurring in people aged 10–29 years. The burden of mental and substance use disorders increased by 37.6% between 1990 and 2010, which for most disorders was driven by population growth and ageing. **Interpretation** Despite the apparently small contribution of YLLs—with deaths in people with mental disorders coded to the physical cause of death and suicide coded to the category of injuries under self-harm—our findings show the striking and growing challenge that these disorders pose for health systems in developed and developing regions. In view of the magnitude of their contribution, improvement in population health is only possible if countries make the prevention and treatment of mental and substance use disorders a public health priority.

Whiteford, H. A., M. G. Harris, et al. (2013). **"Estimating remission from untreated major depression: A systematic review and meta-analysis."** *Psychological Medicine* 43(08): 1569-1585. <http://dx.doi.org/10.1017/S0033291712001717>

Background Few studies have examined spontaneous remission from major depression. This study investigated the proportion of prevalent cases of untreated major depression that will remit without treatment in a year, and whether remission rates vary by disorder severity. **Method** Wait-list controlled trials and observational cohort studies published up to 2010 with data describing remission from untreated depression at > or = 2-year follow-up were identified. Remission was defined as rescinded diagnoses or below threshold scores on standardized symptom measures. Nineteen studies were included in a regression model predicting the probability of 12-month remission from untreated depression, using logit transformed remission proportion as the dependent variable. Covariates included age, gender, study type and diagnostic measure. **Results** Wait-listed compared to primary-care samples, studies with longer follow-up duration and older adult compared to adult samples were associated with lower probability of remission. Child and adolescent samples were associated with higher probability of remission. Based on adult samples recruited from primary-care settings, the model estimated that 23% of prevalent cases of untreated depression will remit within 3 months, 32% within 6 months and 53% within 12 months. **Conclusions** It is undesirable to expect 100% treatment coverage for depression, given many will remit before access to services is feasible. Data were drawn from consenting wait-list and primary-care samples, which potentially over-represented mild-to-moderate cases of depression. Considering reported rates of spontaneous remission, a short untreated period seems defensible for this subpopulation, where judged appropriate by the clinician. **Conclusions** may not apply to individuals with more severe depression.

Yeager, D., G. Walton, et al. (2013). **"Addressing achievement gaps with psychological interventions."** *Kappan*(February): 62-65. www.kappanmagazine.org

(Downloadable in free full text from <http://homepage.psy.utexas.edu/homepage/group/YeagerLAB/ADRG/publications.html>) Besides being researchers, each of us is also a teacher. Like anyone who has taught, we know the feeling of failing to connect with some students. It's disheartening. Before going into research, one of us (Yeager) taught middle school. He wanted to help kids in tough straits get a good education. Yet, looking at his gradebook at the end of his first year teaching 7th-grade English in Tulsa, Okla., he saw large gains for more advantaged students but much smaller gains for less advantaged students, including racial and ethnic minority students. He thought that he'd given these students just as much attention, if not more, and that he'd held them to equally high standards. He'd given them plenty of helpful critical feedback and cared about their success. What had gone wrong? And what could be done differently? Many teachers have such experiences. Our research investigates why, sometimes, no matter how hard you work to create a good lesson plan or provide high-quality feedback, some students don't stay as motivated or learn as much as teachers would like. We also look at what can be done to improve their outcomes.

Yeager, D. S., V. Purdie-Vaughns, et al. (2013). **"Breaking the cycle of mistrust: Wise interventions to provide critical feedback across the racial divide."** *J Exp Psychol Gen.* <http://www.ncbi.nlm.nih.gov/pubmed/23937186>

Three double-blind randomized field experiments examined the effects of a strategy to restore trust on minority adolescents' responses to critical feedback. In Studies 1 and 2, 7th-grade students received critical feedback from their teacher that, in the treatment condition, was designed to assuage mistrust by emphasizing the teacher's high standards and belief that the student was capable of meeting those standards - a strategy known as wise feedback. Wise feedback increased students' likelihood of submitting a revision of an essay (Study 1) and improved the quality of their final drafts (Study 2). Effects were generally stronger among African American students than among White students, and particularly strong among African Americans who felt more mistrusting of school. Indeed, among this latter group of students, the 2-year decline in trust evident in the control condition was, in the wise feedback condition, halted. Study 3, undertaken in a low-income public high school, used attributional retraining to teach students to attribute critical feedback in school to their teachers' high standards and belief in their potential. It raised African Americans' grades, reducing the achievement gap. Discussion centers on the roles of trust and recursive social processes in adolescent development.

