48 bhma abstracts, april '13

Forty eight abstracts covering a multitude of stress, health & wellbeing related subjects including the importance of sodium & potassium intake for health, prosocial spending & wellbeing, mindfulness & substance use disorders, effects of bullying, internal feedback from one's facial expression, insomnia thought control strategies, pulse rate & mortality risk, smile intensity & fighting performance, DSM-5, anxiety & depression in preschool children, self-affirmation & academic achievement, hypnotherapy & IBS, and much more.

(Aburto, Hanson et al. 2013; Aburto, Ziolkovska et al. 2013; Aknin, Barrington-Leigh et al. 2013; Bergen-Cico and Cheon 2013; Chiesa and Serretti 2013; Chiesa, Serretti et al. 2013; Copeland, Wolke et al. 2013; Dalgleish, Navrady et al. 2013; Davey, Sired et al. 2013; Dobson, Giovannoni et al. 2013; English and John 2013; Galinsky, Hall et al. 2013; Gellis and Park 2013; Greenberg and Meiran 2013; He, Li et al. 2013; Henderson and Thornicroft 2013; Houle 2013; Hunter and Chilcot 2013; Iglesias, Ramos et al. 2013; Jensen, Suadicani et al. 2013; Jonas, Cusack et al. 2013; King, Erickson et al. 2013; Kraus and Chen 2013; Kupfer, Kuhl et al. 2013; Landolt, Schnyder et al. 2013; Larsson, Orsini et al. 2013; Legate, DeHaan et al. 2013; Luby 2013; Mejdahl, Andersen et al. 2013; Myers, Aubuchon-Endsley et al. 2013; O'Neil, Berk et al. 2013; Oliver-Williams, Heydon et al. 2013; Raes, Griffith et al. 2013; Rai, Lee et al. 2013; Rakel, Mundt et al. 2013; Rethorst, Sunderajan et al. 2013; Ross, Grigoriadis et al. 2013; Rutten, Reitsma et al. 2013; Sbarra, Boals et al. 2013; Sedlovskaya, Purdie-Vaughns et al. 2013; Sherman, Hartson et al. 2013; Simon and Ludman 2013; Stevens, Wiesman et al. 2013; Stillmaker and Kasser 2013; Strazzullo 2013; Teo, Lear et al. 2013; Whorwell 2013; Wong, Lau et al. 2013)

Aburto, N. J., S. Hanson, et al. (2013). ***"Effect of increased potassium intake on cardiovascular risk factors and disease: Systematic review and meta-analyses."*** BMJ 346: f1378. http://www.ncbi.nlm.nih.gov/pubmed/23558164

OBJECTIVE: To conduct a systematic review of the literature and meta-analyses to fill the gaps in knowledge on potassium intake and health. DATA SOURCES: Cochrane Central Register of Controlled Trials, Medline, Embase, WHO International Clinical Trials Registry Platform, Latin American and Caribbean Health Science Literature Database, and the reference lists of previous reviews. STUDY SELECTION: Randomised controlled trials and cohort studies reporting the effects of potassium intake on blood pressure, renal function, blood lipids, catecholamine concentrations, all cause mortality, cardiovascular disease, stroke, and coronary heart disease were included. DATA EXTRACTION AND SYNTHESIS: Potential studies were independently screened in duplicate, and their characteristics and outcomes were extracted. When possible, meta-analysis was done to estimate the effects (mean difference or risk ratio with 95% confidence interval) of higher potassium intake by using the inverse variance method and a random effect model. RESULTS: 22 randomised controlled trials (including 1606 participants) reporting blood pressure, blood lipids, catecholamine concentrations, and renal function and 11 cohort studies (127,038 participants) reporting all cause mortality, cardiovascular disease, stroke, or coronary heart disease in adults were included in the meta-analyses. Increased potassium intake reduced systolic blood pressure by 3.49 (95% confidence interval 1.82 to 5.15) mm Hg and diastolic blood pressure by 1.96 (0.86 to 3.06) mm Hg in adults, an effect seen in people with hypertension but not in those without hypertension. Systolic blood pressure was reduced by 7.16 (1.91 to 12.41) mm Hg when the higher potassium intake was 90-120 mmol/day, without any dose response. Increased potassium intake had no significant adverse effect on renal function, blood lipids, or catecholamine concentrations in adults. An inverse statistically significant association was seen between potassium intake and risk of incident stroke (risk ratio 0.76, 0.66 to 0.89). Associations between potassium intake and incident cardiovascular disease (risk ratio 0.88, 0.70 to 1.11) or coronary heart disease (0.96, 0.78 to 1.19) were not statistically significant. In children, three controlled trials and one cohort study suggested that increased potassium intake reduced systolic blood pressure by a non-significant 0.28 (-0.49 to 1.05) mm Hg. CONCLUSIONS: High quality evidence shows that increased potassium intake reduces blood pressure in people with hypertension and has no adverse effect on blood lipid concentrations, catecholamine concentrations, or renal function in adults. Higher potassium intake was associated with a 24% lower risk of stroke (moderate quality evidence). These results suggest that increased potassium intake is potentially beneficial to most people without impaired renal handling of potassium for the prevention and control of elevated blood pressure and stroke.

Aburto, N. J., A. Ziolkovska, et al. (2013). ***"Effect of lower sodium intake on health: Systematic review and meta-analyses."*** BMJ 346: f1326. http://www.ncbi.nlm.nih.gov/pubmed/23558163

OBJECTIVE: To assess the effect of decreased sodium intake on blood pressure, related cardiovascular diseases, and potential adverse effects such as changes in blood lipids, catecholamine levels, and renal function. DESIGN: Systematic review and meta-analysis. DATA SOURCES: Cochrane Central Register of Controlled Trials, Medline, Embase, WHO International Clinical Trials Registry Platform, the Latin American and Caribbean health science literature database, and the reference lists of previous reviews. STUDY SELECTION: Randomised controlled trials and prospective cohort studies in non-acutely ill adults and children assessing the relations between sodium intake and blood pressure, renal function, blood lipids, and catecholamine levels, and in non-acutely ill adults all cause mortality, cardiovascular disease, stroke, and coronary heart disease. STUDY APPRAISAL AND SYNTHESIS: Potential studies were screened independently and in duplicate and study characteristics and outcomes extracted. When possible we conducted a meta-analysis to estimate the effect of lower sodium intake using the inverse variance method and a random effects model. We present results as mean differences or risk ratios, with 95% confidence intervals. RESULTS: We included 14 cohort studies and five randomised controlled trials reporting all cause mortality, cardiovascular disease, stroke, or coronary heart disease; and 37 randomised controlled trials measuring blood pressure, renal function, blood lipids, and catecholamine levels in adults. Nine controlled trials and one cohort study in children reporting on blood pressure were also included. In adults a reduction in sodium intake significantly reduced resting systolic blood pressure by 3.39 mm Hg (95% confidence interval 2.46 to 4.31) and resting diastolic blood pressure by 1.54 mm Hg (0.98 to 2.11). When sodium intake was <2 g/day versus >/= 2 g/day, systolic blood pressure was reduced by 3.47 mm Hg (0.76 to 6.18) and diastolic blood pressure by 1.81 mm Hg (0.54 to 3.08). Decreased sodium intake had no significant adverse effect on blood lipids, catecholamine levels, or renal function in adults (P>0.05). There were insufficient randomised controlled trials to assess the effects of reduced sodium intake on mortality and morbidity. The associations in cohort studies between sodium intake and all cause mortality, incident fatal and non-fatal cardiovascular disease, and coronary heart disease were non-significant (P>0.05). Increased sodium intake was associated with an increased risk of stroke (risk ratio 1.24, 95% confidence interval 1.08 to 1.43), stroke mortality (1.63, 1.27 to 2.10), and coronary heart disease mortality (1.32, 1.13 to 1.53). In children, a reduction in sodium intake significantly reduced systolic blood pressure by 0.84 mm Hg (0.25 to 1.43) and diastolic blood pressure by 0.87 mm Hg (0.14 to 1.60). CONCLUSIONS: High quality evidence in non-acutely ill adults shows that reduced sodium intake reduces blood pressure and has no adverse effect on blood lipids, catecholamine levels, or renal function, and moderate quality evidence in children shows that a reduction in sodium intake reduces blood pressure. Lower sodium intake is also associated with a reduced risk of stroke

and fatal coronary heart disease in adults. The totality of evidence suggests that most people will likely benefit from reducing sodium intake.

Aknin, L. B., C. P. Barrington-Leigh, et al. (2013). ***"Prosocial spending and well-being: Cross-cultural evidence for a psychological universal."*** J Pers Soc Psychol 104(4): 635-652. http://www.ncbi.nlm.nih.gov/pubmed/23421360

This research provides the first support for a possible psychological universal: Human beings around the world derive emotional benefits from using their financial resources to help others (prosocial spending). In Study 1, survey data from 136 countries were examined and showed that prosocial spending is associated with greater happiness around the world, in poor and rich countries alike. To test for causality, in Studies 2a and 2b, we used experimental methodology, demonstrating that recalling a past instance of prosocial spending has a causal impact on happiness across countries that differ greatly in terms of wealth (Canada, Uganda, and India). Finally, in Study 3, participants in Canada and South Africa randomly assigned to buy items for charity reported higher levels of positive affect than participants assigned to buy the same items for themselves, even when this prosocial spending did not provide an opportunity to build or strengthen social ties. Our findings suggest that the reward experienced from helping others may be deeply ingrained in human nature, emerging in diverse cultural and economic contexts.

Bergen-Cico, D. and S. Cheon (2013). ***"The mediating effects of mindfulness and self-compassion on trait anxiety."*** Mindfulness (N Y): 1-15. http://dx.doi.org/10.1007/s12671-013-0205-y

Research has found meditation to be associated with improved mental health; however, less is known about how these positive outcomes develop. To better understand the operant effects of meditation on mental health, this study is set forth to examine the potential mediating effects of commonly measured constructs of mindfulness and self-compassion on trait anxiety, a personality trait prevalent in many psychiatric conditions. This longitudinal study uses a meditation treatment (n = 108) and comparative control (n = 94) designed to examine relational changes in mindfulness, self-compassion, and trait anxiety data collected in three waves: (a) baseline, (b) mid-program, and (c) post-program. Structural equation modeling (SEM) revealed significant increases in mindfulness and self-compassion scores among the treatment cohort and cross-lagged regression models that revealed significant reductions in trait anxiety were mediated by preceding increases in mindfulness. SEM model testing found that increases in mindfulness precipitate increases in self-compassion, but neither self-compassion nor anxiety mediated mindfulness. Whereas both self-compassion and mindfulness were associated with reductions in anxiety, the cultivation of mindfulness had the most robust mediating effect on reductions in trait anxiety. These finding reinforce previous studies that have suggested that increases in mindfulness skills may mediate the effects of meditation on mental health outcomes. Among the strengths of the current study are the longitudinal three waves of data, including mid-program data that enables cross-lagged regression. The cross-lagged models indicate the temporal ordering of changes and reveal mindfulness as the key mediating variable preceding substantive changes in self-compassion and trait anxiety.

Chiesa, A. and A. Serretti (2013). ***"Are mindfulness-based interventions effective for substance use disorders? A systematic review of the evidence."*** Subst Use Misuse. http://www.ncbi.nlm.nih.gov/pubmed/23461667

Mindfulness-based interventions (MBIs) are increasingly suggested as therapeutic approaches for effecting substance use and misuse (SUM). The aim of this article is to review current evidence on the therapeutic efficacy of MBIs for SUM. A literature search was undertaken using four electronic databases and references of retrieved articles. The search included articles written in English published up to December 2011. Quality of included trials was assessed. In total, 24 studies were included, three of which were based on secondary analyses of previously investigated samples. Current evidence suggests that MBIs can reduce the consumption of several substances including alcohol, cocaine, amphetamines, marijuana, cigarettes, and opiates to a significantly greater extent than waitlist controls, non-specific educational support groups, and some specific control groups. Some preliminary evidence also suggests that MBIs are associated with a reduction in craving as well as increased mindfulness. The limited generalizability of the reviewed findings is noted (i.e., small sample size, lack of methodological details, and the lack of consistently replicated findings). More rigorous and larger randomized controlled studies are warranted.

Chiesa, A., A. Serretti, et al. (2013). ***"Mindfulness: Top-down or bottom-up emotion regulation strategy?"*** Clin Psychol Rev 33(1): 82-96. http://www.ncbi.nlm.nih.gov/pubmed/23142788

The beneficial clinical effects of mindfulness practices are receiving increasing support from empirical studies. However, the functional neural mechanisms underlying these benefits have not been thoroughly investigated. Some authors suggest that mindfulness should be described as a 'top-down' emotion regulation strategy, while others suggest that mindfulness should be described as a 'bottom-up' emotion regulation strategy. Current discrepancies might derive from the many different descriptions and applications of mindfulness. The present review aims to discuss current descriptions of mindfulness and the relationship existing between mindfulness practice and most commonly investigated emotion regulation strategies. Recent results from functional neuro-imaging studies investigating mindfulness training within the context of emotion regulation are presented. We suggest that mindfulness training is associated with 'top-down' emotion regulation in short-term practitioners and with 'bottom-up' emotion regulation in long-term practitioners. Limitations of current evidence and suggestions for future research on this topic are discussed.

Copeland, W. E., D. Wolke, et al. (2013). ***"Adult psychiatric outcomes of bullying and being bullied by peers in childhood and adolescence."*** JAMA Psychiatry 70(4): 419-426. http://dx.doi.org/10.1001/jamapsychiatry.2013.504

Importance Both bullies and victims of bullying are at risk for psychiatric problems in childhood, but it is unclear if this elevated risk extends into early adulthood. Objective To test whether bullying and/or being bullied in childhood predicts psychiatric problems and suicidality in young adulthood after accounting for childhood psychiatric problems and family hardships.Design Prospective, population-based study. Setting Community sample from 11 counties in Western North Carolina.Participants A total of 1420 participants who had being bullied and bullying assessed 4 to 6 times between the ages of 9 and 16 years. Participants were categorized as bullies only, victims only, bullies and victims (hereafter referred to as bullies/victims), or neither. Main Outcome Measure Psychiatric outcomes, which included depression, anxiety, antisocial personality disorder, substance use disorders, and suicidality (including recurrent thoughts of death, suicidal ideation, or a suicide attempt), were assessed in young adulthood (19, 21, and 24-26 years) by use of structured diagnostic interviews. Results Victims and bullies/victims had elevated rates of young adult psychiatric disorders, but also elevated rates of childhood psychiatric disorders and family hardships. After controlling for childhood psychiatric problems or family hardships, we found that victims continued to have a higher prevalence of agoraphobia (odds ratio [OR], 4.6 [95% CI, 1.7-12.5]; P < .01), generalized anxiety (OR, 2.7 [95% CI, 1.1-6.3]; P < .001), and panic disorder (OR, 3.1 [95% CI, 1.5-6.5]; P < .01) and that bullies/victims were at increased risk of young adult depression (OR, 4.8 [95% CI, 1.2-19.4]; P < .05), panic disorder (OR, 14.5 [95% CI, 5.7-36.6]; P < .001), agoraphobia (females only; OR, 26.7 [95% CI, 4.3-52.5]; P < .001), and suicidality (males only; OR, 18.5 [95% CI, 6.2-55.1]; P < .001). Bullies were at risk for antisocial personality disorder only (OR, 4.1 [95% CI, 1.1-15.8]; P < .04). Conclusions and Relevance The effects of being bullied are direct, pleiotropic, and long-lasting, with the worst effects for those who are both victims and bullies.

Dalgleish, T., L. Navrady, et al. (2013). ***"Method-of-loci as a mnemonic device to facilitate access to self-affirming personal memories for individuals with depression."*** Clinical Psychological Science 1(2): 156-162. http://cpx.sagepub.com/content/1/2/156.abstract

(Free full text available) Depression impairs the ability to retrieve positive, self-affirming autobiographical memories. To counteract this difficulty, we trained individuals with depression, either in episode or remission, to construct an accessible mental repository for a preselected set of positive, self-affirming memories using an ancient mnemonic technique—the method-of-loci (MoL). Participants in a comparison condition underwent a similar training protocol where they chunked the memories into meaningful sets and rehearsed them (rehearsal). Both protocols enhanced memory recollection to near ceiling levels after 1 week of training. However, on a surprise follow-up recall test a further week later, recollection was maintained only in the MoL condition, relative to a significant decrease in memories recalled in the rehearsal group. There were no significant performance differences between those currently in episode and those in remission. The results support use of the MoL as a tool to facilitate access to self-affirming memories in those with depression.

Davey, G. L., R. Sired, et al. (2013). ***"The role of facial feedback in the modulation of clinically-relevant ambiguity resolution."*** Cognitive Therapy and Research 37(2): 284-295. http://dx.doi.org/10.1007/s10608-012-9480-5

Two experiments investigated the effect of facial expressions on clinically-relevant ambiguity resolution in a nonclinical sample. Experiment 1 investigated the effect of negative facial feedback (frowning) on a basic threat-interpretation bias procedure using a homophone spelling task and found that participants in a frowning condition interpreted significantly more threat/neutral homophones as threats than did participants in a neutral control condition. Experiment 2 investigated how frowning affected interpretation of bodily sensations. The findings indicated that participants in the frowning condition generated fewer positive consequences for bodily sensation scenarios and also rated the imagined bodily sensations as more negative and more of a cause for health concern. These effects could not simply be explained by differences in self-reported mood or by demand characteristics. These findings suggest that facial expressions have a moderating effect on the cognitive processes that contribute to clinically-relevant ambiguity resolution, and this has implications for clinical interventions.

Dobson, R., G. Giovannoni, et al. (2013). ***"The month of birth effect in multiple sclerosis: Systematic review, meta-analysis and effect of latitude."*** Journal of Neurology, Neurosurgery & Psychiatry 84(4): 427-432. http://jnnp.bmj.com/content/84/4/427.abstract

Background Month of birth has previously been described as a risk factor for multiple sclerosis (MS). This has been hypothesised to be related to maternal vitamin D levels during pregnancy, although conclusive evidence to support this is lacking. To date, no large studies of latitudinal variation in the month of birth effect have been performed to advance this hypothesis.Methods Previously published data on month of birth from 151 978 MS patients were compared to expected birth rates. A linear regression model was used to assess the relationship between latitude and observed:expected birth ratio of MS patients for each month.Results Analysis of all reported data demonstrated a significant excess of MS risk in those born in April (observed:expected 1.05, p=0.05) and reduction in risk in those born in October (0.95, p=0.04) and November (0.92 p=0.01). A conservative analysis of 78 488 patients revealed an excess MS risk in those born in April (1.07, p=0.002) and May (1.11, p=0.0006), and a reduced risk in those born in October (ratio 0.94, p=0.004) and November (0.88, p=0.0002). A significant relationship between latitude and observed:expected ratio was demonstrated in December, and borderline significant relationships in May and August. Conclusions Month of birth has a significant effect on subsequent MS risk. This is likely to be due to ultraviolet light exposure and maternal vitamin D levels, as demonstrated by the relationship between risk and latitude.

English, T. and O. P. John (2013). ***"Understanding the social effects of emotion regulation: The mediating role of authenticity for individual differences in suppression."*** Emotion 13(2): 314-329. http://www.ncbi.nlm.nih.gov/pubmed/23046456

Individuals differ in the strategies they use to regulate their emotions (e.g., suppression, reappraisal), and these regulatory strategies can differentially influence social outcomes. However, the mechanisms underlying these social effects remain to be specified. We examined one potential mediator that arises directly from emotion-regulatory effort (expression of positive emotion), and another mediator that does not involve emotion processes per se, but instead results from the link between regulation and self-processes (subjective inauthenticity). Across three studies, only inauthenticity mediated the link between habitual use of suppression and poor social functioning (lower relationship satisfaction, lower social support). These findings replicated across individuals socialized in Western and East Asian cultural contexts, younger and older adults, when predicting social functioning concurrently and a decade later, and even when broader adjustment was controlled. Thus, the social costs of suppression do not seem to be due to reduced positive emotion expression but rather the incongruence between inner-self and outer-behavior. Reappraisal was not consistently related to social functioning. Implications of these findings for emotion processes, self processes, and interpersonal relationships are discussed.

Galinsky, A. D., E. V. Hall, et al. (2013). ***"Gendered races: Implications for interracial marriage, leadership selection, and athletic participation."*** Psychological Science 24(4): 498-506. http://pss.sagepub.com/content/24/4/498.abstract

Six studies explored the overlap between racial and gender stereotypes, and the consequences of this overlap for interracial dating, leadership selection, and athletic participation. Two initial studies captured the explicit and implicit gender content of racial stereotypes: Compared with the White stereotype, the Asian stereotype was more feminine, whereas the Black stereotype was more masculine. Study 3 found that heterosexual White men had a romantic preference for Asians over Blacks and that heterosexual White women had a romantic preference for Blacks over Asians; preferences for masculinity versus femininity mediated participants' attraction to Blacks relative to Asians. The pattern of romantic preferences observed in Study 3 was replicated in Study 4, an analysis of the data on interracial marriages from the 2000 U.S. Census. Study 5 showed that Blacks were more likely and Asians less likely than Whites to be selected for a masculine leadership position. In Study 6, an analysis of college athletics showed that Blacks were more heavily represented in more masculine sports, relative to Asians. These studies demonstrate that the gender content of racial stereotypes has important real-world consequences.

Gellis, L. and A. Park (2013). ***"Nighttime thought control strategies and insomnia severity."*** Cognitive Therapy and Research 37(2): 383-389. http://dx.doi.org/10.1007/s10608-012-9479-y

Strategies used to control unwanted thoughts during the evening have been shown to be significantly associated with insomnia, a common problem associated with numerous negative consequences. This study examined whether nighttime thought control strategies would predict insomnia severity among 460 college students (mean age = 18.8, 61 % female, and 72 % Caucasian) after accounting for well-established risk factors for the disorder such as anxiety, depression, sleep hygiene, and nighttime pain. The Insomnia Severity Index was used to measure insomnia severity and the Thought Control Questionnaire Insomnia-Revised was used to measure nighttime thought management strategies. Results from a hierarchical multiple linear regression showed that the strategy of cognitive distraction (attempts to withdraw from unwanted thoughts or think about more

pleasant content) was negatively associated with insomnia severity and the strategy of aggressive suppression (the use of critical and punishing self thought) was positively associated with insomnia severity after accounting for other risk factors. These findings add to the growing literature highlighting arousing pre-sleep cognitions as a correlate of insomnia. These findings also add to emerging literature showing the ability to cognitively distract from the arousing thought as a correlate of good sleep.

Greenberg, J. and N. Meiran (2013). ***"Is mindfulness meditation associated with "feeling less?"."*** Mindfulness (N Y): 1-6. http://dx.doi.org/10.1007/s12671-013-0201-2

Following previous research which has suggested that mindfulness meditators are less affected by emotional stimuli, the current study examined the hypothesis that mindfulness meditation is associated with decreased emotional engagement, by inducing moods and asking participants to generate as many autobiographical memories opposite in valence as possible. Experienced mindfulness meditators took twice as long as non-meditators to generate the first opposite mood memory yet generated the same total number of memories as non-meditators. Contrary to the initial hypothesis, results indicate that mindfulness may be associated with increased emotional engagement, increased contact with emotions, and rapid recovery from the emotional experience. The effect of mindfulness on implicit and explicit aspects of emotion is discussed, as well as potential implications for treatment of related disorders.

He, F. J., J. Li, et al. (2013). ***"Effect of longer term modest salt reduction on blood pressure: Cochrane systematic review and meta-analysis of randomised trials."*** BMJ 346: f1325. http://www.ncbi.nlm.nih.gov/pubmed/23558162

OBJECTIVE: To determine the effects of longer term modest salt reduction on blood pressure, hormones, and lipids. DESIGN: Systematic review and meta-analysis. DATA SOURCES: Medline, Embase, Cochrane Hypertension Group Specialised Register, Cochrane Central Register of Controlled Trials, and reference list of relevant articles. INCLUSION CRITERIA: Randomised trials with a modest reduction in salt intake and duration of at least four weeks. DATA EXTRACTION AND ANALYSIS: Data were extracted independently by two reviewers. Random effects meta-analyses, subgroup analyses, and meta-regression were performed. RESULTS: Thirty four trials (3230 participants) were included. Meta-analysis showed that the mean change in urinary sodium (reduced salt v usual salt) was -75 mmol/24 h (equivalent to a reduction of 4.4 g/day salt), and with this reduction in salt intake, the mean change in blood pressure was -4.18 mm Hg (95% confidence interval -5.18 to -3.18, I(2)=75%) for systolic blood pressure and -2.06 mm Hg (-2.67 to -1.45, I(2)=68%) for diastolic blood pressure. Meta-regression showed that age, ethnic group, blood pressure status (hypertensive or normotensive), and the change in 24 hour urinary sodium were all significantly associated with the fall in systolic blood pressure, explaining 68% of the variance between studies. A 100 mmol reduction in 24 hour urinary sodium (6 g/day salt) was associated with a fall in systolic blood pressure of 5.8 mm Hg (2.5 to 9.2, P=0.001) after adjustment for age, ethnic group, and blood pressure status. For diastolic blood pressure, age, ethnic group, blood pressure status, and the change in 24 hour urinary sodium explained 41% of the variance between studies. Meta-analysis by subgroup showed that in people with hypertension the mean effect was -5.39 mm Hg (-6.62 to -4.15, I(2)=61%) for systolic blood pressure and -2.82 mm Hg (-3.54 to -2.11, I(2)=52%) for diastolic blood pressure. In normotensive people, the figures were -2.42 mm Hg (-3.56 to -1.29, I(2)=66%) and -1.00 mm Hg (-1.85 to -0.15, I(2)=66%), respectively. Further subgroup analysis showed that the decrease in systolic blood pressure was significant in both white and black people and in men and women. Meta-analysis of data on hormones and lipids showed that the mean change was 0.26 ng/mL/h (0.17 to 0.36, I(2)=70%) for plasma renin activity, 73.20 pmol/L (44.92 to 101.48, I(2)=62%) for aldosterone, 187 pmol/L (39 to 336, I(2)=5%) for noradrenaline (norepinephrine), 37 pmol/L (-1 to 74, I(2)=12%) for adrenaline (epinephrine), 0.05 mmol/L (-0.02 to 0.11, I(2)=0%) for total cholesterol, 0.05 mmol/L (-0.01 to 0.12, I(2)=0%) for low density lipoprotein cholesterol, -0.02 mmol/L (-0.06 to 0.01, I(2)=16%) for high density lipoprotein cholesterol, and 0.04 mmol/L (-0.02 to 0.09, I(2)=0%) for triglycerides. CONCLUSIONS: A modest reduction in salt intake for four or more weeks causes significant and, from a population viewpoint, important falls in blood pressure in both hypertensive and normotensive individuals, irrespective of sex and ethnic group. Salt reduction is associated with a small physiological increase in plasma renin activity, aldosterone, and noradrenaline and no significant change in lipid concentrations. These results support a reduction in population salt intake, which will lower population blood pressure and thereby reduce cardiovascular disease. The observed significant association between the reduction in 24 hour urinary sodium and the fall in systolic blood pressure, indicates that larger reductions in salt intake will lead to larger falls in systolic blood pressure. The current recommendations to reduce salt intake from 9-12 to 5-6 g/day will have a major effect on blood pressure, but a further reduction to 3 g/day will have a greater effect and should become the long term target for population salt intake.

Henderson, C. and G. Thornicroft (2013). ***"Evaluation of the time to change programme in England 2008-2011."*** The British Journal of Psychiatry 202(s55): s45-s48. http://bjp.rcpsych.org/content/202/s55/s45.abstract

Time to Change (TTC) is the largest-ever programme in England designed to reduce stigma and discrimination against people with mental health disorders. The TTC evaluation partner is the Institute of Psychiatry at King's College London. We give an overview of the TTC programme 2007-2011 and describe how it was evaluated, by introducing the seven interrelated papers in this supplement, which, taken together, describe a complex series of social interventions using a research design of hitherto unparalleled detail and comprehensiveness.

Houle, J. N. (2013). ***"Depressive symptoms and all-cause mortality in a nationally representative longitudinal study with time-varying covariates."*** Psychosomatic Medicine 75(3): 297-304. http://www.psychosomaticmedicine.org/content/75/3/297.abstract

Objective To examine the relationship between depressive symptoms and all-cause mortality in a longitudinal study with a nationally representative sample. Research has shown that depressive symptoms increase mortality risk, but results have been inconclusive regarding the role of physical health conditions in the relationship. This study asks whether the association between depressive symptoms and mortality exists independent of contemporaneous physical health conditions, is spurious because of prior physical health conditions, or is mediated by later physical health conditions.Methods Data are drawn from the Americans' Changing Lives Study, a sample of 3617 noninstitutionalized Americans aged 25 years or older. Respondents were interviewed in 1986, 1989, 1994, and 2002. Depressive symptoms (Center for Epidemiologic Studies Depression Scale [CES-D]), physical health, and confounders were measured at each wave. Mortality status was ascertained yearly through 2007. Discrete time hazard models with time-varying covariates were used to estimate the association between CES-D scores and mortality. Results Between 1986 and 2007, 1411 survey respondents died. Depressive symptoms were associated with mortality after adjusting for stress, coping characteristics, social support, and health behaviors (odds ratio [OR] = 1.23, 95% confidence interval [CI] = 1.11–1.36, $p < .001$). However, the association became nonsignificant after accounting for contemporaneous physical health conditions (OR = 1.06, 95% CI = 0.95–1.17, $p = .31$). Prior physical health conditions did not explain the association (OR = 1.24, 95% CI = 1.11–1.39, $p < .001$). The association between lagged depressive symptoms and mortality was mediated by later physical health conditions ($p = .94$). Conclusions Study findings support the mediation hypothesis. The effect of depressive symptoms on mortality is mediated by later physical health.

Hunter, M. S. and J. Chilcot (2013). ***"Testing a cognitive model of menopausal hot flushes and night sweats."*** Journal of Psychosomatic Research 74(4): 307-312. http://www.sciencedirect.com/science/article/pii/S0022399912003388

AbstractObjective Hot flushes and night sweats (HFNS) are commonly experienced by women during the menopause transition and are particularly problematic for approximately 25% having negative impact on their quality of life. We previously developed a cognitive model of HFNS, which outlines potential predictors of HFNS. This study aims to test the model by investigating the relationships between personality characteristics, perceived stress, mood, HFNS beliefs and subjective and physiological measures of menopausal HFNS. Methods 140 women (menopause transition or postmenopausal) who were experiencing at least 10 HFNS per week for at least a month, completed assessment interviews, including questionnaires assessing optimism, somatic amplification, perceived stress, depressed mood, anxiety, HFNS beliefs and HFNS frequency, problem-rating and 24-hour sternal skin conductance monitoring. Structural equation models (SEM) were used to investigate the optimum predictive model for HFNS Frequency and HFNS Problem-Rating. Results On average 63 HFNS per week and moderately problematic HFNS were reported. The physiological measure of HFNS frequency was not associated with socio-demographic variables, personality or mood. The final SEM explained 53.2% of the variance in problem rating. Stress, anxiety and somatic amplification predicted HFNS problem rating but only via their impact on HFNS beliefs; HFNS frequency, smoking and alcohol intake also predicted HFNS problem rating. Conclusions Findings support the influence of psychological factors on experience of HFNS at the level of symptom perception and cognitive appraisal of HFNS.

Iglesias, B., F. Ramos, et al. (2013). ***"A randomized controlled trial of nurses vs. doctors in the resolution of acute disease of low complexity in primary care."*** J Adv Nurs. http://www.ncbi.nlm.nih.gov/pubmed/23517494

AIMS: To compare the effectiveness of care delivered by nurses to the usual care delivered by general practitioners, in adult patients requesting same day appointments in primary care practices in Catalonia (Spain). BACKGROUND: Same day appointments conducted by nurses are characterized by high patient satisfaction and a high resolution index. The profile of nursing and the organization of primary care services in our country differ from other countries. DESIGN: Multicentre, randomized, unblinded clinical trial with two parallel groups. METHODS: Patients were randomized to an intervention group (seen by nurses trained to respond to low complexity problems) or a control group (seen by the general practitioner) using an automatic probabilistic function. Setting: 38 primary care practices in Catalonia, 142 general practitioners and 155 nurses participated. Population study: >/= 18-year-old patients who requested a same day consultation. Recruitment period: January-May, 2009. Of the 1,461 randomized patients, 92.5% completed the study. Main outcome measures: resolution of symptoms and patient satisfaction 2 weeks after the visit. RESULTS: Seven hundred and fifty-three patients were assigned to the intervention group and 708 to the control group. Nurses successfully solved 86.3% of the cases. We did not observe any differences in resolution of symptoms or patient satisfaction between the groups. CONCLUSIONS: Nurses trained specifically to resolve acute health problems of low complexity give comparable quality of care to that provided by general practitioners in terms of resolution of the problem 15 days after the visit and in patient satisfaction with the visit.

Jensen, M. T., P. Suadicani, et al. (2013). ***"Elevated resting heart rate, physical fitness and all-cause mortality: A 16-year follow-up in the copenhagen male study."*** Heart 99(12): 882-887. http://heart.bmj.com/content/99/12/882.abstract

(Free full text available) Objective To examine whether elevated resting heart rate (RHR) is an independent risk factor for mortality or a mere marker of physical fitness (VO2Max).Methods This was a prospective cohort study: the Copenhagen Male Study, a longitudinal study of healthy middle-aged employed men. Subjects with sinus rhythm and without known cardiovascular disease or diabetes were included. RHR was assessed from a resting ECG at study visit in 1985–1986. VO2Max was determined by the Åstrand bicycle ergometer test in 1970–1971. Subjects were classified into categories according to level of RHR. Associations with mortality were studied in multivariate Cox models adjusted for physical fitness, leisure-time physical activity and conventional cardiovascular risk factors.Results 2798 subjects were followed for 16 years. 1082 deaths occurred. RHR was inversely related to physical fitness ($p<0.001$). Overall, increasing RHR was highly associated with mortality in a graded manner after adjusting for physical fitness, leisure-time physical activity and other cardiovascular risk factors. Compared to men with RHR ≤50, those with RHR >90 had an HR (95% CI) of 3.06 (1.97 to 4.75). With RHR as a continuous variable, risk of mortality increased with 16% (10–22) per 10 beats per minute (bpm). There was a borderline interaction with smoking ($p=0.07$); risk per 10 bpm increase in RHR was 20% (12–27) in smokers, and 14% (4–24) in non-smokers.Conclusions Elevated RHR is a risk factor for mortality independent of physical fitness, leisure-time physical activity and other major cardiovascular risk factors.

Jonas, D. E., K. Cusack, et al. (2013). ***"Psychological and pharmacological treatments for adults with posttraumatic stress disorder (ptsd). Comparative effectiveness review no. 92. ."*** AHRQ Comparative Effectiveness Reviews. Publication No. 13-EHC011-EF: 1-760. www.effectivehealthcare.ahrq.gov/reports/final.cfm

(Full 760 page report freely downloadable) Objectives. To assess efficacy, comparative effectiveness, and harms of ps ychological and pharmacological treatments for adults with posttraumatic stress disorder (PTSD). Data sources. MEDLINE®, Cochrane Library, PILOTS, International Pharmaceutical Abstracts, CINAHL®, PsycINFO®, Web of Science, Embase, U.S. Food and Drug Administration Web site, and reference lists of published literature (January 1980–May 2012). Review methods. Two investigators independently selected, extracted data from, and rated risk of bias of relevant trials. We conducted quantitative analyses using random-effects models to estimate pooled effects. To estimate medications' comparative effectiveness, we conducted a network meta-analysis using Bayesian methods. We graded strength of evidence (SOE) based on established guidance. Results. We included 92 trials of patients, generally with severe PTSD and mean age of 30s to 40s. High SOE supports efficacy of exposure therapy for improving PTSD symptoms (Cohen's d -1.27; 95% confidence interval, -1.54 to -1.00); number needed to treat (NNT) to achieve loss of diagnosis was 2 (moderate SOE). Evidence also supports efficacy of cognitive processing therapy (CPT), cognitive therapy (CT), cognitive behavioral therapy (CBT)-mixed therapies, eye movement desensitization and reprocessing (EMDR), and narrative exposure therapy for improving PTSD symptoms and/or achieving loss of diagnosis (moderate SOE). Effect sizes for reducing PTSD symptoms were large (e.g., 28.9- to 32.2-poi nt reduction in Clinician-Administered PTSD Scale [CAPS]; Cohen's d ~ -1.0 or more compared with controls); NNTs were ≤ 4 to achieve loss of diagnosis for CPT, CT, CBT-mixed, and EMDR. Evidence supports the efficacy of fluoxetine, paroxetine, sertraline, topiramate, and venlafaxine for improving PTSD symptoms (moderate SOE); effect sizes were small or medium (e.g., 4.9- to 15.5-point reduction in CAPS compared with placebo). Evidence for paroxetine and venlafaxine also supports their efficacy for inducing remission (NNTs ~8; moderate SOE). Evidence supports paroxetine's efficacy for improving depression symptoms and functional impairment (moderate SOE) and venlafaxine's efficacy for improving depression symptoms, quality of life, and functional impairment (moderate SOE). Risperidone may help PTSD symptoms (low SOE). Network meta-analysis of 28 trials (4,817 subjects) found paroxetine and topiramate to be more effective than most medications for reducing PTSD symptoms, but analysis was based largely on indirect evidence and limited to one outcome measure (low SOE). We found i nsufficient head-to-head evidence comparing efficacious treatments; insufficient evidence to verify whether any treatment approaches were more effective for victims of particular trauma types or to determine comparative risks of adverse effects.

King, A. P., T. M. Erickson, et al. (2013). ***"A pilot study of group mindfulness-based cognitive therapy (mbct) for combat veterans with posttraumatic stress disorder (ptsd)."*** Depression and Anxiety: n/a-n/a. http://dx.doi.org/10.1002/da.22104

Background "Mindfulness-based" interventions show promise for stress reduction in general medical conditions, and initial evidence suggests that they are accepted in trauma-exposed individuals. Mindfulness-based cognitive therapy (MBCT) shows substantial efficacy for prevention of depression relapse, but it has been less studied in anxiety disorders. This study investigated the feasibility, acceptability, and clinical outcomes of an MBCT group intervention adapted for combat posttraumatic stress disorder (PTSD). Methods Consecutive patients seeking treatment for chronic PTSD at a VA outpatient clinic were enrolled in 8-week MBCT groups, modified for PTSD (four groups, n = 20) or brief treatment-as-usual (TAU) comparison group interventions (three groups, n = 17). Pre and posttherapy psychological assessments with clinician administered PTSD scale (CAPS) were performed with all patients, and self-report measures (PTSD diagnostic scale, PDS, and posttraumatic cognitions inventory, PTCI) were administered in the MBCT group. Results Intent to treat analyses showed significant improvement in PTSD (CAPS ($t(19) = 4.8$, $P < .001$)) in the MBCT condition but not the TAU conditions, and a significant Condition × Time interaction ($F[1,35] = 16.4$, $P < .005$). MBCT completers (n = 15, 75%) showed good compliance with assigned homework exercises, and significant and clinically meaningful improvement in PTSD symptom severity on posttreatment assessment in CAPS and PDS (particularly in avoidance/numbing symptoms), and reduced PTSD-relevant cognitions in PTCI (self blame). Conclusions These data suggest group MBCT as an acceptable brief intervention/adjunctive therapy for combat PTSD, with potential for reducing avoidance symptom cluster and PTSD cognitions. Further studies are needed to examine efficacy in a randomized controlled design and to identify factors influencing acceptability and efficacy.

Kraus, M. W. and T. W. Chen (2013). ***"A winning smile? Smile intensity, physical dominance, and fighter performance."*** Emotion 13(2): 270-279. http://www.ncbi.nlm.nih.gov/pubmed/23356564

The smile is perhaps the most widely studied facial expression of emotion, and in this article we examine its status as a sign of physical dominance. We reason, on the basis of prior research, that prior to a physical confrontation, smiles are a nonverbal sign of reduced hostility and aggression, and thereby unintentionally communicate reduced physical dominance. Two studies provide evidence in support of this prediction: Study 1 found that professional fighters who smiled more in a prefight photograph taken facing their opponent performed more poorly during the fight in relation to their less intensely smiling counterparts. In Study 2, untrained observers judged a fighter as less hostile and aggressive, and thereby less physically dominant when the fighters' facial expression was manipulated to show a smiling expression in relation to the same fighter displaying a neutral expression. Discussion focused on the reasons why smiles are associated with decreased physical dominance.

Kupfer, D. J., E. A. Kuhl, et al. (2013). ***"DSM-5 - the future arrived."*** JAMA 309(16): 1691-1692. http://dx.doi.org/10.1001/jama.2013.2298

(Free full text available) Readers will recognize a few notable differences from DSM-IV. One distinction is DSM-5 's emphasis on numerous issues important to diagnosis and clinical care, including the influence of development, gender, and culture on the presentation of disorders. This is present in select diagnostic criteria, in text, or in both, which include variations of symptom presentations, risk factors, course, comorbidities, or other clinically useful information that might vary depending on a patient's gender, age, or cultural background. Another distinct feature is ensuring greater harmony between this North American classification system and the International Classification of Diseases (ICD) system. For example, the chapter structure of DSM now begins with those in which neurodevelopmental influences produce early-onset disorders in childhood. This restructuring brings greater alignment of DSM-5 to the structuring of disorders in the future ICD-11 but also reflects the manual's developmental emphasis, rather than the previous edition's sequestering of all childhood disorders to a separate chapter. A similar approach to harmonizing with the ICD was taken to promote a more conceptual relationship between DSM-5 and classifications in other areas of medicine, such as the classification of sleep disorders.

Landolt, M. A., U. Schnyder, et al. (2013). ***"Trauma exposure and posttraumatic stress disorder in adolescents: A national survey in switzerland."*** Journal of Traumatic Stress 26(2): 209-216. http://dx.doi.org/10.1002/jts.21794

There are a limited number of epidemiological studies that have focused on trauma exposure and prevalence of posttraumatic stress disorder (PTSD) in representative general population samples of adolescents, especially outside of the United States. We therefore aimed to assess the lifetime prevalence of traumatic events (TEs) and current prevalence of PTSD, and to examine demographic risk factors for TEs and PTSD in a representative sample of adolescents. Data were collected by a school survey among a sample of 6,787 9th-grade students in Switzerland. Roughly 56% of the adolescents (females 56.6%; males 55.7%) reported having experienced at least 1 TE. Non-Swiss nationality (OR = 1.80), not living with both biological parents (OR = 1.64), and lower parental education (OR = 1.18) were associated with a higher risk of trauma exposure. The current prevalence of PTSD according to the Diagnostic and Statistical Manual of Mental Disorders (4th ed., text rev.; DSM-IV-TR; American Psychiatric Association, 2000) criteria was 4.2% (females 6.2%; males 2.4%). Female gender (OR = 2.70), not living with both biological parents (OR = 1.47), lower parental education (OR = 1.51), and exposure to multiple TEs (OR = 9.56) were significant risk factors for PTSD. Results suggest considerably high rates of TEs and PTSD among adolescents. Intervention efforts must be intensified to reduce trauma exposure and treat PTSD.

Larsson, S. C., N. Orsini, et al. (2013). ***"Dietary calcium intake and risk of stroke: A dose-response meta-analysis."*** Am J Clin Nutr 97(5): 951-957. http://ajcn.nutrition.org/content/97/5/951.abstract

Background: The findings from epidemiologic studies of calcium intake and risk of stroke have been conflicting.Objective: The objective was to conduct a dose-response meta-analysis of prospective studies to assess the association between dietary calcium intake and stroke risk.Design: Relevant studies were identified by searching PubMed and EMBASE databases until 11 December 2012 and by reviewing the reference lists of relevant articles. Observational prospective studies that reported RRs and 95% CIs for the association of calcium intake with stroke incidence or mortality were eligible. Study-specific RRs were combined by using a random-effects model.Results: Eleven prospective studies, including 9095 cases of stroke, were included in the meta-analysis. Evidence of a nonlinear association between dietary calcium intake and risk of stroke was found. In a stratified analysis, calcium intake was inversely associated with risk of stroke in populations with a low to moderate average calcium intake (<700 mg/d; RR for a 300-mg/d increase in calcium intake: 0.82; 95% CI: 0.76, 0.88) but was weakly positively associated with risk in populations with a high calcium intake (≥700 mg/d; corresponding RR: 1.03; 95% CI: 1.01, 1.06). An inverse association between calcium intake and risk of stroke was observed only in Asian populations (n = 4; RR for a 300-mg/d increase in calcium intake: 0.78; 95% CI: 0.71, 0.87).Conclusion: These findings suggest that dietary calcium intake may be inversely associated with stroke in populations with low to moderate calcium intakes and in Asian populations.

Legate, N., C. R. DeHaan, et al. (2013). ***"Hurting you hurts me too: The psychological costs of complying with ostracism."*** Psychological Science 24(4): 583-588. http://pss.sagepub.com/content/24/4/583.abstract

Much research has documented the harmful psychological effects of being ostracized, but research has yet to determine whether compliance with ostracizing other people is psychologically costly. We conducted two studies guided by self-determination theory to explore this question, using a paradigm that borrows from both ostracism research and Milgram's classic study of obedience. Supporting our guiding hypothesis that compliance with ostracizing others carries psychological costs, the results of Experiment 1 showed that such compliance worsened mood compared with complying with instructions to include others and with receiving no instructions involving inclusion or exclusion, an effect explained by thwarted psychological needs resulting from ostracizing others. Experiment 2 revealed increases in negative affect both when individuals ostracized others and when individuals were ostracized themselves. Our findings point to the robust psychological costs associated with ostracizing other people, with implications for group behaviors.

Luby, J. L. (2013). ***"Treatment of anxiety and depression in the preschool period."*** Journal of the American Academy of Child & Adolescent Psychiatry 52(4): 346-358. http://www.sciencedirect.com/science/article/pii/S0890856713000737

Objective Empirical studies have established that clinical anxiety and depressive disorders may arise in preschool children as young as 3.0 years. Because empirical studies validating and characterizing these disorders in preschoolers are relatively recent, less work has been done on the development and testing of age-appropriate treatments. Method A comprehensive literature search yielded several small randomized controlled trials of psychotherapeutic treatments for preschool anxiety and depression. The literature also contained case series of behavioral and psychopharmacologic interventions for specific anxiety disorders. However, to date, no large-scale randomized controlled trials of treatment for any anxiety or depressive disorder specifically targeting preschool populations have been published. Results Several age-adapted forms of cognitive-behavioral therapy have been developed and preliminarily tested in small randomized controlled trials and appear promising for different forms of preschool anxiety disorders. Notably, these adaptations centrally involve primary caregivers and use age-adjusted methodology such as cartoon-based materials and co-constructed drawing or narratives. Modified forms of Parent Child Interaction Therapy have been tested and appear promising for anxiety and depression. Although preventive interventions that target parenting have shown significant promise in anxiety, these methods have not been explored in early childhood depression. Studies of the impact of parental treatment on infants suggest that direct treatment of the youngest children may be necessary to affect long-term change. Conclusions Recommendations are made for the clinical treatment of these disorders when psychotherapy is the first line of intervention.

Mejdahl, M. K., K. G. Andersen, et al. (2013). ***"Persistent pain and sensory disturbances after treatment for breast cancer: Six year nationwide follow-up study."*** BMJ 346: f1865. http://www.ncbi.nlm.nih.gov/pubmed/23580693

OBJECTIVE: To examine the development of persistent pain after treatment for breast cancer and to examine risk factors associated with continuing pain. DESIGN: Repeated cross sectional study in a previously examined nationwide cohort. All eligible women who underwent surgery for primary breast cancer in Denmark in 2005 and 2006 and were examined in 2008 were surveyed again with the same questionnaire. SETTING: Surgical centres in Denmark. MAIN OUTCOME MEASURES: Prevalence, location, and severity of persistent pain after treatment for breast cancer in well defined treatment groups and changes in pain reporting and sensory disturbances from 2008 to 2012. PARTICIPANTS: In 2012, 2828 women were eligible in our database, and 108 were excluded. Exclusion criteria were death; new, recurrent, or other cancer; reconstructive breast surgery; and emigration. RESULTS: 2411 (89%) women returned the questionnaire. Prevalence of persistent pain after treatment for breast cancer ranged from 22% to 53% depending on treatment. In 2012, 903 (37%) women reported such pain, a fall from 45% in 2008. Of these, 378 (16%) reported pain of >/= 4 on a numerical rating scale (scale 0-10), a fall from 19%. Among women reporting pain in 2008, 36% no longer reported it in 2012. In contrast, 15% of the women who did not report pain in 2008 reported it in 2012. Risk factors for having pain were axillary lymph node dissection rather than sentinel lymph node biopsy (odds ratio 2.04, 95% confidence interval 1.60 to 2.61; P<0.001) and age </= 49 (1.78, 1.25 to 2.54; P<0.001). No particular method of treatment or age was associated with an increase in pain from 2008 to 2012. CONCLUSIONS: Persistent pain after treatment for breast cancer remains an important problem five to seven years later. The problem is not static as it can either progress or regress with time.

Myers, E. R., N. Aubuchon-Endsley, et al. (2013). ***"Efficacy and safety of screening for postpartum depression."*** AHRQ Comparative Effectiveness Reviews. Report No.: 13-EHC064-EF. http://www.ncbi.nlm.nih.gov/pubmed/23678510

To describe the benefits and harms of specific tools and strategies for screening for postpartum depression. We searched PubMed(R), Embase(R), PsycINFO(R), and the Cochrane Database of Systematic Reviews for relevant English-language studies published from January 1, 2004, to July 24, 2012, that evaluated the performance of screening instruments for postpartum depression, potential benefits and harms of screening, and impact on appropriate postscreening actions. Two investigators screened each abstract and full-text article for inclusion; abstracted data; and performed quality ratings, applicability ratings, and evidence grading. A simulation model was used to estimate the effects of screening for postpartum depression on the overall balance of benefits and harms. Forty studies (represented by 45 articles) were identified as relevant to this review. Eighteen studies provided sensitivity and specificity data on 9 screening instruments: 11 on the Edinburgh Postnatal Depression Scale, 4 on the Postpartum Depression Screening Scale, 4 on different versions of the Beck Depression Inventory, 2 on a "two-question" screen, and 1 each on 5 other instruments. Heterogeneity in setting, patient population, and choice of threshold prevented formal synthesis. For most tests in most studies, sensitivity and specificity were in the 80-90 percent range, with higher sensitivity associated with lower specificity; the two-question screen had 100 percent sensitivity but specificities of 45-65 percent. Fifteen studies analyzed the association between risk factors and postpartum depression. Although adverse pregnancy outcomes and chronic medical conditions (low strength of evidence) and past history of depression, poor relationship quality, and poor social support (moderate strength of evidence) were all associated with an increased risk of postpartum depression, only two studies directly reported an effect on test results. (Sensitivity was nonsignificantly increased in primigravidas compared with multigravidas.) Based on two studies, there was insufficient evidence to evaluate whether timing relative to delivery, setting, or provider affected test characteristics of screening instruments. Based on five studies, there was low to moderate strength of evidence that screening resulted in decreased depressive symptoms and improved mental health; in four of these studies, improvement in depressive symptoms was not accompanied by improvement in measures of parenting stress. Rates of referral and treatment for women with positive screening results were substantially higher in two studies where screening, diagnosis, and treatment were provided in the same setting; referral rates in other studies were all 50 percent or less. Modeling suggests that serial testing with a two-question screen followed by a second more specific instrument for those who have a positive result may be a reasonable strategy to reduce false positives while minimizing false negatives. The potential effectiveness of screening for postpartum depression appears to be related to the availability of systems to ensure adequate followup of women with positive results. The ideal characteristics of a screening test for postpartum depression, including sensitivity, specificity, timing, and frequency, have not been defined. Because the balance of benefits and harms, at both the

individual level and health system level, is highly dependent on these characteristics, broad consensus on these characteristics is needed.

O'Neil, A., M. Berk, et al. (2013). ***"A randomised, controlled trial of a dietary intervention for adults with major depression (the "SMILES" trial): Study protocol."*** BMC Psychiatry 13(1): 114. http://www.biomedcentral.com/1471-244X/13/114

(Free full text available) BACKGROUND: Despite increased investment in its recognition and treatment, depression remains a substantial health and economic burden worldwide. Current treatment strategies generally focus on biological and psychological pathways, largely neglecting the role of lifestyle. There is emerging evidence to suggest that diet and nutrition play an important role in the risk, and the genesis, of depression. However, there are limited data regarding the therapeutic impact of dietary changes on existing mental illness. Using a randomised controlled trial design, we aim to investigate the efficacy and cost-efficacy of a dietary program for the treatment of Major Depressive Episodes (MDE). METHODS/DESIGN: One hundred and seventy six eligible participants suffering from current MDE are being randomised into a dietary intervention group or a social support group. Depression status is assessed using the Montgomery-Asberg Depression Rating Scale (MADRS) and Structured Clinical Interview for Diagnostic and Statistical Manual of Mental Disorders (Non Patient Edition) (SCID-I/NP). The intervention consists of 7 individual nutrition consulting sessions (of approximately 60 minutes), delivered by an Accredited Practising Dietitian (APD). Sessions commence within one week of baseline assessment. The intervention focuses on advocating a healthy diet based on the Australian Dietary Guidelines and the Dietary Guidelines for Adults in Greece. The control condition comprises a befriending protocol using the same visit schedule and length as the diet intervention. The study is being conducted at two locations in Victoria, Australia (a metropolitan and regional centre). Data collection occurs at baseline (pre-intervention), 3-months (post-intervention) and 6- months. The primary endpoint is MADRS scores at 3 months. A cost consequences analysis will determine the economic value of the intervention.DISCUSSION:If efficacious, this program could provide an alternative or adjunct treatment strategy for the management of this highly prevalent mental disorder; the benefits of which could extend to the management of common co-morbidities including cardiovascular disease (CVD), obesity, and type 2 diabetes.

Oliver-Williams, C. T., E. E. Heydon, et al. (2013). ***"Miscarriage and future maternal cardiovascular disease: A systematic review and meta-analysis."*** Heart. http://heart.bmj.com/content/early/2013/03/27/heartjnl-2012-303237.abstract

(Available in free full text) Context The 2011 American Heart Association guidelines identified pregnancy complications as a risk factor for cardiovascular disease in women. However, miscarriage was not mentioned within the guidelines, and there is no consensus on the association between miscarriage and future risk of cardiovascular disease. Objective To confirm or refute the association, a meta-analysis of published papers was conducted.Data sources PubMed, Web of Knowledge and Scopus were systematically searched to identify appropriate articles. Reference lists were then hand searched for additional relevant titles. Study Selection To be included, articles had to assess the association between miscarriage and subsequent cardiovascular disease in otherwise healthy women. Only women who had miscarriages were considered exposed. Pooled association measures, using random effects meta-analysis, were calculated for coronary heart disease and cerebrovascular disease. Publication bias and between-study heterogeneity were evaluated. Data Extraction Two authors individually reviewed all studies and extracted data on patient and study characteristics along with cardiovascular outcomes. Results 10 studies were identified, with 517 504 individuals included in the coronary heart disease meta-analysis and 134 461 individuals in the cerebrovascular disease analysis. A history of miscarriage was associated with a greater odds of developing coronary heart disease, OR (95% CI) =1.45 (1.18 to 1.78), but not with cerebrovascular disease, OR=1.11 (0.72 to 1.69). There was a strong association between recurrent miscarriage and coronary heart disease OR=1.99 (1.13 to 3.50). Evidence was found for moderate between-study heterogeneity and publication bias in the coronary heart disease analysis. Conclusions The meta-analysis indicates that a history of miscarriage or recurrent miscarriage is associated with a greater risk of subsequent coronary heart disease. *[My note: looks like miscarriage highlights a need to check for & maintain good cardiovascular health].*

Raes, F., J. Griffith, et al. (2013). ***"School-based prevention and reduction of depression in adolescents: A cluster-randomized controlled trial of a mndfulness group program."*** Mindfulness (N Y): 1-10. http://dx.doi.org/10.1007/s12671-013-0202-1

Our objective was to conduct the first randomized controlled trial of the efficacy of a group mindfulness program aimed at reducing and preventing depression in an adolescent school-based population. For each of 12 pairs of parallel classes with students (age range 13–20) from five schools (N = 408), one class was randomly assigned to the mindfulness condition and one class to the control condition. Students in the mindfulness group completed depression assessments (the Depression Anxiety Stress Scales) prior to and immediately following the intervention and 6 months after the intervention. Control students completed the questionnaire at the same times as those in the mindfulness group. Hierarchical linear modeling showed that the mindfulness intervention showed significantly greater reductions (and greater clinically significant change) in depression compared with the control group at the 6-month follow-up. Cohen's d was medium sized (>.30) for both the pre-to-post and pre-to-follow-up effect for depressive symptoms in the mindfulness condition. The findings suggest that school-based mindfulness programs can help to reduce and prevent depression in adolescents.

Rai, D., B. K. Lee, et al. (2013). ***"Parental depression, maternal antidepressant use during pregnancy, and risk of autism spectrum disorders: Population based case-control study."*** BMJ 346: f2059. http://www.bmj.com/content/346/bmj.f2059

(Free full text available) OBJECTIVE: To study the association between parental depression and maternal antidepressant use during pregnancy with autism spectrum disorders in offspring. DESIGN: Population based nested case-control study. SETTING: Stockholm County, Sweden, 2001-07. PARTICIPANTS: 4429 cases of autism spectrum disorder (1828 with and 2601 without intellectual disability) and 43,277 age and sex matched controls in the full sample (1679 cases of autism spectrum disorder and 16,845 controls with data on maternal antidepressant use nested within a cohort (n=589,114) of young people aged 0-17 years. MAIN OUTCOME MEASURE: A diagnosis of autism spectrum disorder, with or without intellectual disability. EXPOSURES: Parental depression and other characteristics prospectively recorded in administrative registers before the birth of the child. Maternal antidepressant use, recorded at the first antenatal interview, was available for children born from 1995 onwards. RESULTS: A history of maternal (adjusted odds ratio 1.49, 95% confidence interval 1.08 to 2.08) but not paternal depression was associated with an increased risk of autism spectrum disorders in offspring. In the subsample with available data on drugs, this association was confined to women reporting antidepressant use during pregnancy (3.34, 1.50 to 7.47, P=0.003), irrespective of whether selective serotonin reuptake inhibitors (SSRIs) or non-selective monoamine reuptake inhibitors were reported. All associations were higher in cases of autism without intellectual disability, there being no evidence of an increased risk of autism with intellectual disability. Assuming an unconfounded, causal association, antidepressant use during pregnancy explained 0.6% of the cases of autism spectrum disorder. CONCLUSIONS: In utero exposure to both SSRIs and non-selective monoamine reuptake inhibitors (tricyclic antidepressants) was associated with an increased risk of autism spectrum

disorders, particularly without intellectual disability. Whether this association is causal or reflects the risk of autism with severe depression during pregnancy requires further research. However, assuming causality, antidepressant use during pregnancy is unlikely to have contributed significantly towards the dramatic increase in observed prevalence of autism spectrum disorders as it explained less than 1% of cases.

Rakel, D., M. Mundt, et al. (2013). ***"Value associated with mindfulness meditation and moderate exercise intervention in acute respiratory infection: The mepari study."*** Fam Pract. http://www.ncbi.nlm.nih.gov/pubmed/23515373

BACKGROUND AND OBJECTIVES:Acute respiratory infection (ARI) is among the most common, debilitating and expensive human illnesses. The purpose of this study was to assess ARI-related costs and determine if mindfulness meditation or exercise can add value. METHODS: One hundred and fifty-four adults >/=50 years from Madison, WI for the 2009-10 cold/flu season were randomized to (i) wait-list control (ii) meditation or (iii) moderate intensity exercise. ARI-related costs were assessed through self-reported medication use, number of missed work days and medical visits. Costs per subject were based on cost of generic medications, missed work days ($126.20) and clinic visits ($78.70). Monte Carlo bootstrap methods evaluated reduced costs of ARI episodes. RESULTS: The total cost per subject for the control group was $214 (95% CI: $105-$358), exercise $136 (95% CI: $64-$232) and meditation $65 (95% CI: $34-$104). The majority of cost savings was through a reduction in missed days of work. Exercise had the highest medication costs at $16.60 compared with $5.90 for meditation (P = 0.004) and $7.20 for control (P = 0.046). Combining these cost benefits with the improved outcomes in incidence, duration and severity seen with the Meditation or Exercise for Preventing Acute Respiratory Infection study, meditation and exercise add value for ARI. Compared with control, meditation had the greatest cost benefit. This savings is offset by the cost of the intervention ($450/subject) that would negate the short-term but perhaps not long-term savings. CONCLUSIONS: Meditation and exercise add value to ARI-associated health-related costs with improved outcomes. Further research is needed to confirm results and inform policies on adding value to medical spending.

Rethorst, C. D., P. Sunderajan, et al. (2013). ***"Does exercise improve self-reported sleep quality in non-remitted major depressive disorder?"*** Psychological Medicine 43(04): 699-709. http://dx.doi.org/10.1017/S0033291712001675

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.

Ross, L. E., S. Grigoriadis, et al. (2013). ***"Selected pregnancy and delivery outcomes after exposure to antidepressant medication: A systematic review and meta-analysis."*** JAMA Psychiatry 70(4): 436-443. http://dx.doi.org/10.1001/jamapsychiatry.2013.684

Importance Untreated depression during pregnancy has been associated with increased morbidity and mortality for both mother and child and, as such, optimal treatment strategies are required for this population.Context There are conflicting data regarding potential risks of prenatal antidepressant treatment. Objective To determine whether prenatal antidepressant exposure is associated with risk for selected adverse pregnancy or delivery outcomes. Data Sources MEDLINE, EMBASE, Cumulative Index to Nursing and Allied Health Literature, PsycINFO, and the Cochrane Library were searched from their start dates to June 30, 2010.Study Selection English-language studies reporting outcomes associated with pharmacologic treatment during pregnancy were included. We reviewed 3074 abstracts, retrieved 735 articles, and included 23 studies in this meta-analysis.Data Extraction Study design, antidepressant exposure, adjustment for confounders, and study quality were extracted by 2 independent reviewers.Results There was no significant association between antidepressant medication exposure and spontaneous abortion (odds ratio [OR], 1.47; 95% CI, 0.99 to 2.17; P = .055). Gestational age and preterm delivery were statistically significantly associated with antidepressant exposure (mean difference [MD] [weeks], −0.45; 95% CI, −0.64 to −0.25; P < .001; and OR, 1.55; 95% CI, 1.38 to 1.74; P < .001, respectively), regardless of whether the comparison group consisted of all unexposed mothers or only depressed mothers without antidepressant exposure. Antidepressant exposure during pregnancy was significantly associated with lower birth weight (MD [grams], −74; 95% CI, −117 to −31; P = .001); when this comparison group was limited to depressed mothers without antidepressant exposure, there was no longer a significant association. Antidepressant exposure was significantly associated with lower Apgar scores at 1 and 5 minutes, regardless of whether the comparison group was all mothers or only those who were depressed during pregnancy but not exposed to antidepressants. Conclusions and Relevance Although statistically significant associations between antidepressant exposure and pregnancy and delivery outcomes were identified, group differences were small and scores in the exposed group were typically within the normal ranges, indicating the importance of considering clinical significance. Treatment decisions must weigh the effect of untreated maternal depression against the potential adverse effects of antidepressant exposure.

Rutten, J. M. T. M., J. B. Reitsma, et al. (2013). ***"Gut-directed hypnotherapy for functional abdominal pain or irritable bowel syndrome in children: A systematic review."*** Archives of Disease in Childhood 98(4): 252-257. http://adc.bmj.com/content/98/4/252.abstract

(Free full text available) Objectives Gut directed hypnotherapy (HT) is shown to be effective in adult functional abdominal pain (FAP) and irritable bowel syndrome (IBS) patients. We performed a systematic review to assess efficacy of HT in paediatric FAP/IBS patients.Methods We searched Medline, Embase, PsychINFO, Cumulative Index to Nursing and Allied Health Literature databases and Cochrane Central Register of Controlled Trials for randomised controlled trials (RCT) in children with FAP or IBS, investigating efficacy of HT on the following outcomes: abdominal pain scores, quality of life, costs and school absenteeism. Results Three RCT comparing HT to a control treatment were included with sample sizes ranging from 22 to 52 children. We refrained from statistical pooling because of low number of studies and many differences in design and outcomes. Two studies examined HT performed by a therapist, one examined HT through self-exercises on audio CD. All trials showed statistically significantly greater improvement in abdominal pain scores among children receiving HT. One trial reported

beneficial effects sustained after 1 year of follow-up. One trial reported statistically significant improvement in quality of life in the HT group. Two trials reported significant reductions in school absenteeism after HT.Conclusions Therapeutic effects of HT seem superior to standard medical care in children with FAP or IBS. It remains difficult to quantify exact benefits. The need for more high quality research is evident.

Sbarra, D. A., A. Boals, et al. (2013). ***"Expressive writing can impede emotional recovery following marital separation."*** Clinical Psychological Science 1(2): 120-134. http://cpx.sagepub.com/content/1/2/120.abstract

(Free full text available) Marital separation and divorce are common life events that increase risk for poor health outcomes, yet few intervention studies explore how to mitigate this increased risk. This study implemented an expressive writing (EW) intervention for adults who experienced a recent marital separation. Ninety participants (32 men) were randomly assigned to and completed one of three experimental writing tasks: traditional EW, a novel (narrative-based) type of EW, or control writing. Up to 9 months after this writing, participants who were judged to be actively engaged in a search for meaning concerning their separation reported significantly worse emotional outcomes when assigned to either EW condition relative to control writing. Within the control condition, those participants who were actively engaged in a search for meaning reported the lowest levels of separation-related disturbance. We discuss these results in terms of the factors that may limit and promote psychological recovery following marital separation.

Sedlovskaya, A., V. Purdie-Vaughns, et al. (2013). ***"Internalizing the closet: Concealment heightens the cognitive distinction between public and private selves."*** J Pers Soc Psychol 104(4): 695-715. http://www.ncbi.nlm.nih.gov/pubmed/23397971

The present studies are the first in which social psychological methods were used to test the popular claim that the experience of concealing a stigmatized social identity leads to a "divided self." For people with concealable stigmas, concealment in public settings makes the public-private dimension of self-expression particularly salient, leading them to organize self-relevant information along this dimension. The result is a strengthened cognitive distinction between public and private aspects of the self, what we have termed public-private schematization. We developed and tested a measure of the cognitive accessibility of the distinction between public and private self-schemas by measuring how quickly participants sorted trait attributes into self-in-public (e.g., self-at-work) and self-in-private (e.g., self-at-home). People with more accessible distinct public and private self-schemas should be faster at categorizing trait attributes into public- and private-self aspects than those with more integrated public and private self-schemas. Relative to people without such identities, people with concealable stigmas (Study 1a, sexual orientation; Study 1b, religiosity at a secular college), show greater public-private schematization. This schematization is linked to concealment (Study 2) and to the experimental activation of concealable versus conspicuous stigmatized identities (Study 3). Implications of distinct public and private self-schemas for psychological well-being are explored in Studies 4 and 5. Two different measures of distress-perceived social stress (Study 4) and depressive symptoms (Study 5)-provided evidence showing that the accessibility of the distinction between public and private self-schemas accounted for the association of concealment on heightened distress. Implications for research on concealment and self-structure are discussed.

Sherman, D. K., K. A. Hartson, et al. (2013). ***"Deflecting the trajectory and changing the narrative: How self-affirmation affects academic performance and motivation under identity threat."*** J Pers Soc Psychol 104(4): 591-618. http://www.ncbi.nlm.nih.gov/pubmed/23397969

To the extent that stereotype and identity threat undermine academic performance, social psychological interventions that lessen threat could buffer threatened students and improve performance. Two studies, each featuring a longitudinal field experiment in a mixed-ethnicity middle school, examined whether a values affirmation writing exercise could attenuate the achievement gap between Latino American and European American students. In Study 1, students completed multiple self-affirmation (or control) activities as part of their regular class assignments. Latino American students, the identity threatened group, earned higher grades in the affirmation than control condition, whereas White students were unaffected. The effects persisted 3 years and, for many students, continued into high school by lifting their performance trajectory. Study 2 featured daily diaries to examine how the affirmation affected psychology under identity threat, with the expectation that it would shape students' narratives of their ongoing academic experience. By conferring a big-picture focus, affirmation was expected to broaden construals, prevent daily adversity from being experienced as identity threat, and insulate academic motivation from identity threat. Indeed, affirmed Latino American students not only earned higher grades than nonaffirmed Latino American students but also construed events at a more abstract than concrete level and were less likely to have their daily feelings of academic fit and motivation undermined by identity threat. Discussion centers on how social-psychological processes propagate themselves over time and how timely interventions targeting these processes can promote well-being and achievement.

Simon, G. E. and E. J. Ludman (2013). ***"Should mental health interventions be locally grown or factory-farmed?"*** Am J Psychiatry 170(4): 362-365. http://ajp.psychiatryonline.org/article.aspx?articleid=1674553

(Free full text available) In this issue, Fortney and colleagues open the next phase of research regarding organized depression care programs. The effectiveness of these collaborative care programs is now well established. Essential ingredients include outreach and support by a care manager as well as specialty supervision or consultation for patients who do not respond to standard treatment. Such programs were initially developed in settings where care managers and consulting specialists were locally available. Fortney et al. compared two strategies for providing these services in settings lacking local mental health resources. Five federally qualified health centers were randomly assigned to implement depression care management using either local primary care staff (with no specific supervision or quality control) or centralized care managers supported by an off-site consulting specialist. Patients in clinics using the centralized approach were approximately three times as likely to experience significant improvement or to achieve remission of depression. Fidelity to the care management protocol (goal setting, encouragement of positive activities, and systematic assessment of treatment adherence and outcomes) was markedly higher for the centralized program. Antidepressant treatment did not differ between the two groups, suggesting that benefits of the centralized program were due to the psychosocial aspects of care management, including both nonspecific support and specific behavior-change interventions. This finding has important implications for the implementation of organized depression care programs. Care management or collaborative care programs can certainly work in settings lacking on-site or local mental health providers. In fact, the benefits of organized depression care programs are greatest where existing care is minimal. But the Fortney et al. trial suggests that organized depression care programs in resource-poor settings are more likely to work if care management is centralized, care managers are employed full-time in this capacity, and care is supervised by off-site specialists. While one trial involving five clinics and a few care managers does not definitively settle this question, the only high-quality evidence available strongly favors the centralized approach. More important, these findings raise broader questions regarding the implementation of other empirically supported mental health treatments. Efforts to disseminate these complex interventions have typically focused on training and supervision to improve services delivered by local community therapists. The Fortney et al. trial suggests the possibility of an alternative approach: delivering empirically supported treatments from a

central location using dedicated clinicians. To traditionally minded clinicians, centralized or "factory farmed" psychosocial treatments would seem oxymoronic. But this question should be settled by evidence rather than tradition ... We have limited data directly comparing the fidelity or quality of locally produced (and more variable) psychosocial interventions to that of centrally produced (and more uniform) treatments. The Fortney et al. trial addresses this question directly. Care managers with the same background and training delivered the same intervention through either a centralized or a localized model. The centralized model was clearly superior—in quality of the service delivered, patients' perceptions of helpfulness, and patients' clinical outcomes. Any benefit of local relationships with patients or providers was outweighed by the higher quality of the centralized program. This finding in favor of centralization and standardization might not apply to treatments that are more intensive and complex, such as true psychotherapy. We can certainly point to evidence that centralized psychotherapy programs have clinical benefit. But we have no high-quality evidence directly comparing the effectiveness of centralized and locally provided psychotherapy. We hope that Fortney and colleagues' provocative findings will provoke direct comparisons of centralized and locally produced approaches for a wider range of psychosocial or psychological treatments. Healthy competition between centralized and localized options might improve them both—or lead to some optimal compromise. Mental health services delivered over a distance could develop a personal touch, and locally grown services could learn to systematically measure outcomes, monitor fidelity, and improve consistency. After all, modern statistics and experimental design began with traditional farmers trying to improve their harvests.

Stevens, F. L., O. Wiesman, et al. (2013). ***"Oxytocin and behavior: Evidence for effects in the brain."*** J Neuropsychiatry Clin Neurosci 25(2): 96-102. http://neuro.psychiatryonline.org/article.aspx?articleid=1688307

(Free full text available) Knowledge about the oxytocin (OT) system in the brain has increased greatly over the past decade. Although this neuropeptide is best known for its peripheral effects, direct modulation of central nervous system (CNS) areas has also been implicated in OT's actions, which include a major role in a wide range of affiliative behaviors. Often referred to as the "social bonding" hormone, speculations are being made as to its applications and potential uses in enhancing human relationships. Alterations in the OT system have been implicated in several neuropsychiatric disorders. Multiple types of psychopathology manifest in deficits in social functioning, including inability to maintain interpersonal relationships and engage in socially appropriate behavior. The OT system may influence the efficacy of psychotherapy, as research has repeatedly shown that the therapeutic relationship is one of the largest predictors of therapeutic change. OT may also have value as a therapeutic intervention.

Stillmaker, J. and T. Kasser (2013). ***"Instruction in problem-solving skills increases the hedonic balance of highly neurotic individuals."*** Cognitive Therapy and Research 37(2): 380-382. http://dx.doi.org/10.1007/s10608-012-9466-3

Neuroticism is associated with ineffective coping strategies and experiencing substantial negative affect, but prior research has not examined whether teaching problem-solving skills can help neurotic individuals improve their emotional experience. 214 college students were screened for neuroticism and 30 participants who scored in the top two deciles of neuroticism were randomly assigned to a no-treatment control group or to an intervention group that received three lessons based on a problem-solving curriculum (Nezu et al. in Solving life's problems: a 5-step guide to enhanced well-being. Springer, New York, 2007). Hedonic balance (i.e., positive minus negative affect) was measured before the intervention and again approximately 4 days and approximately 11 weeks after the intervention ended. Analyses revealed that the intervention group showed an increase in hedonic balance over time, whereas the control group showed no changes; improvements in hedonic balance were correlated with improvements in problem-solving strategies. Thus, it appears that teaching problem-solving can improve the emotional experience of neurotic individuals.

Strazzullo, P. (2013). ***"Reducing sodium and increasing potassium intake."*** BMJ 346: f2195. http://www.bmj.com/content/346/bmj.f2195

Yet more evidence of the safety and health benefits of these interventions should influence robust public health efforts: Hypertension and its associated cardiovascular and renal complications is a global health problem that imposes a heavy burden in terms of individual disability and financial costs to individuals and communities. Prevention and treatment of hypertension therefore is a major challenge to health institutions. The recommendation to reduce dietary sodium intake has been incorporated into guidelines for preventing and treating hypertension for decades, yet it is widely ignored even by patients with hypertension. In addition, despite the robust evidence that underlies a reduction in sodium intake, its implementation at the population level remains the object of recurrent criticism, with counterarguments often based on confounded study results or analyses that lack statistical power. Two linked research papers that focus on the effects of reduced sodium intake on blood pressure and related health problems are timely and may help dissipate the public's doubts about the value of reducing sodium intake. Another linked paper examines the health effects of higher potassium intake in adults and children and adds to earlier findings of an inverse association between potassium intake, as well as fruit and vegetable consumption, and blood pressure. Of note, the Department of Nutrition for Health and Development of the World Health Organization was directly involved in two of the three articles, and the results were used in the compilation of the recently updated WHO guidelines on sodium and potassium intake at population level.

Teo, K., S. Lear, et al. (2013). ***"Prevalence of a healthy lifestyle among individuals with cardiovascular disease in high-, middle- and low-income countries: The prospective urban rural epidemiology (pure) study."*** JAMA 309(15): 1613-1621. http://dx.doi.org/10.1001/jama.2013.3519

Importance Little is known about adoption of healthy lifestyle behaviors among individuals with a coronary heart disease (CHD) or stroke event in communities across a range of countries worldwide. Objective To examine the prevalence of avoidance or cessation of smoking, eating a healthy diet, and undertaking regular physical activities by individuals with a CHD or stroke event.Design, Setting, and Participants Prospective Urban Rural Epidemiology (PURE) was a large, prospective cohort study that used an epidemiological survey of 153 996 adults, aged 35 to 70 years, from 628 urban and rural communities in 3 high-income countries (HIC), 7 upper-middle-income countries (UMIC), 3 lower-middle-income countries (LMIC), and 4 low-income countries (LIC), who were enrolled between January 2003 and December 2009. Main Outcome Measures Smoking status (current, former, never), level of exercise (low, <600 metabolic equivalent task [MET]-min/wk; moderate, 600-3000 MET-min/wk; high, >3000 MET-min/wk), and diet (classified by the Food Frequency Questionnaire and defined using the Alternative Healthy Eating Index).Results Among 7519 individuals with self-reported CHD (past event: median, 5.0 [interquartile range {IQR}, 2.0-10.0] years ago) or stroke (past event: median, 4.0 [IQR, 2.0-8.0] years ago), 18.5% (95% CI, 17.6%-19.4%) continued to smoke; only 35.1% (95% CI, 29.6%-41.0%) undertook high levels of work- or leisure-related physical activity, and 39.0% (95% CI, 30.0%-48.7%) had healthy diets; 14.3% (95% CI, 11.7%-17.3%) did not undertake any of the 3 healthy lifestyle behaviors and 4.3% (95% CI, 3.1%-5.8%) had all 3. Overall, 52.5% (95% CI, 50.7%-54.3%) quit smoking (by income country classification: 74.9% [95% CI, 71.1%-78.6%] in HIC; 56.5% [95% CI, 53.4%-58.6%] in UMIC; 42.6% [95% CI, 39.6%-45.6%] in LMIC; and 38.1% [95% CI, 33.1%-43.2%] in LIC). Levels of physical activity increased with increasing country income but this trend was not statistically significant. The lowest prevalence of eating healthy diets was in

LIC (25.8%; 95% CI, 13.0%-44.8%) compared with LMIC (43.2%; 95% CI, 30.0%-57.4%), UMIC (45.1%, 95% CI, 30.9%-60.1%), and HIC (43.4%, 95% CI, 21.0%-68.7%). Conclusion and Relevance Among a sample of patients with a CHD or stroke event from countries with varying income levels, the prevalence of healthy lifestyle behaviors was low, with even lower levels in poorer countries.

Whorwell, P. J. (2013). ***"Hypnotherapy: First line treatment for children with irritable bowel syndrome?"*** Archives of Disease in Childhood 98(4): 243-244. http://adc.bmj.com/content/98/4/243.short

Trance-like states have been recognised for millennia with the term hypnosis being coined by James Braid (1795–1860) a surgeon working in Manchester, England. Since that time the technique has moved in and out of fashion and even today is still regarded with some scepticism. However, over the last 25 years there has been a steady stream of studies indicating that in adults gut focused hypnotherapy helps to relieve the symptoms of irritable bowel syndrome (IBS) and other functional gastrointestinal disorders with the benefits being sustained for many years. Furthermore, in contrast to many pharmacological approaches to these conditions, which often target just one mechanism and consequently one symptom, hypnotherapy frequently improves a wide range of symptoms as well as psychological status and quality of life. It has also been shown that following treatment patients consume less medication and consult less frequently with their general practitioner as well as hospital outpatient departments. In addition, the central (brain) processing of noxious peripheral stimuli is amenable to modulation by hypnosis and some gastrointestinal physiological events can be similarly influenced. Despite all this evidence, it is noteworthy that there has been an apparent reluctance by the medical profession to embrace this form of treatment and its availability within healthcare systems remains sparse in the UK, despite endorsement by National Institute for Health and Clinical Excellence (NICE), and other countries even though there is a progressive demand for it by patients, who are increasingly gaining their information from the internet. Therefore, sufferers often have to seek this form of treatment privately, where the competence of the practitioner cannot necessarily be guaranteed. One of the most obvious reasons for this lack of enthusiasm for the technique is the fact that its efficacy can never be confirmed in a conventional double-blind controlled trial. Consequently, unless a compromise can be reached about what constitutes an acceptable trial design to resolve this dilemma, it is likely that little progress is going to be made. Similarly, systematic reviewers will continue to conclude that 'better, well designed studies are needed before any firm conclusions can be drawn' despite the fact that over 90% of studies published so far, which are admittedly of extremely variable quality, are positive. Another impediment to progress in this field is the lack of a complete understanding of what hypnosis really represents coupled with the bewildering number of techniques that appear to have a hypnotic theme, with protagonists who usually claim that their particular approach is unique in some way. Can it really be that guided imagery, neurolinguistic programming, mindfulness and even approaches such as aromatherapy or reflexology are all completely separate and unrelated? It seems much more likely that they all have some form of common mechanistic basis which has as yet to be defined although some are more closely related than others such as hypnotherapy and guided imagery. Consequently, it was reasonable for Rutten and colleagues, to combine the data from studies on hypnotherapy and guided imagery. All the studies included in this review showed that such approaches are just as effective in the paediatric setting and it is interesting to note that in the one study on hypnotherapy, the effects were subsequently shown to be long lasting and there was a strong impression that children are even more responsive to this form of treatment than adults. This apparent advantage with decreasing age might be explained by some experimental and anecdotal observations from our Unit. In adults we have shown that response to hypnotherapy wanes with age which might suggest that the longer a patient suffers from a functional gastrointestinal disorder, the more entrenched they become in their illness. The alternative explanation that hypnotisability decreases with age is less likely as this seems to be a relatively stable trait and even if it were to decline somewhat, we have shown that response to treatment is not necessarily dependent on hypnotisability. However, it has to be acknowledged that children do have strong imaginations and as imagination plays an important part in the hypnotic process this might confer some degree of advantage over adults. Although we do not see children under the age of 10 in our Unit, we do have some experience in adolescents where we have noticed that the outlook in the majority appears to be far better than in adults and believe that this may be because appropriate education and intervention introduced early in the course of a functional gastrointestinal disorder prevents the build-up of a pattern of illness behaviour. This is because, in addition to pain, bloating and bowel dysfunction, many patients with IBS suffer from a variety of non-colonic symptoms such as backache, lethargy, nausea and bladder symptoms and children are no exception to this rule. It is also worth noting that adult females with IBS in secondary care often comment that the pain that they experience is as bad as, or worse than, that of childbirth. Consequently, a child suffering in this way with such a wide range of often severe symptoms is not unreasonably a source of major concern to themselves and, just as importantly, to their parents and both parties need to understand that they must learn to react differently to this alarming situation which otherwise can be made worse by how they respond to it. This educational process is a critical part of the hypnotherapeutic package so the technique can be used to control symptoms and to reduce psychological distress and improve coping skills. Most adults with IBS admit to symptoms since childhood and once their severity reaches a level requiring referral to secondary care, they frequently continue to suffer for the rest of their lives and become a significant drain on healthcare resources. It is tempting to speculate that early intervention in childhood with a behavioural approach such as hypnotherapy might give an individual the necessary skills to halt this progression and prevent their illness subsequently spiralling out of control. However, choosing which patients might be suitable for such an intervention and its timing is a major challenge, but the prize of actually changing the course of an illness and preventing lifelong suffering is at least worth contemplating.

Wong, M. L., E. Y. Y. Lau, et al. (2013). ***"The interplay between sleep and mood in predicting academic functioning, physical health and psychological health: A longitudinal study."*** Journal of Psychosomatic Research 74(4): 271-277. http://www.sciencedirect.com/science/article/pii/S002239991200219X

Objectives Existing studies on sleep and behavioral outcomes are mostly correlational. Longitudinal data is limited. The current longitudinal study assessed how sleep duration and sleep quality may be causally linked to daytime functions, including physical health (physical well-being and daytime sleepiness), psychological health (mood and self-esteem) and academic functioning (school grades and study effort). The mediation role of mood in the relationship between sleep quality, sleep duration and these daytime functions is also assessed. Methods A sample of 930 Chinese students (aged 18–25) from Hong Kong/Macau completed self-reported questionnaires online across three academic semesters. Sleep behaviors are assessed by the Sleep Timing Questionnaire (for sleep duration and weekday/weekend sleep discrepancy) and the Pittsburgh Sleep Quality Index (sleep quality); physical health by the World Health Organization Quality of Life Scale—Brief Version (physical well-being) and Epworth Sleepiness Scale (daytime sleepiness); psychological health by the Depression Anxiety Stress Scale (mood) and Rosenberg Self-esteem Scale (self-esteem) and academic functioning by grade-point-average and the College Student Expectation Questionnaire (study effort). Results Structural equation modeling with a bootstrap resample of 5000 showed that after controlling for demographics and participants' daytime functions at baseline, academic functions, physical and psychological health were predicted by the duration and quality of sleep. While some sleep behaviors directly predicted daytime functions, others had an indirect effect on daytime functions through negative mood, such as anxiety. Conclusion Sleep duration

and quality have direct and indirect (via mood) effects on college students' academic function, physical and psychological health. Our findings underscore the importance of healthy sleep patterns for better adjustment in college years.