

48 bhma abstracts, january '13

Forty eight abstracts covering a multitude of stress, health & wellbeing related subjects including mental disorders & the common cold, how mate preferences change with age, treatment of child & adolescent depression, surprising new findings on weight & mortality, effects of therapist pre-session centring, resilience in the health professions, ecstasy drug use in treatment of PTSD, detecting suicidality from facial appearance, effects of autonomous & directive support, couple's fairness in division of domestic chores, testosterone & empathy, who can buy happiness, effects of life satisfaction on subsequent life events, a systematic review of NLP, one question screening for alcohol problems, and much more.

(Cassibba, Granqvist et al. 2012; Chalder, Wiles et al. 2012; Cox, Callahan et al. 2012; Festini, Hartley et al. 2012; Jacka, Pasco et al. 2012; Jacka, Rothon et al. 2012; Kelleher, Lynch et al. 2012; Kleiman and Rule 2012; Koestner, Powers et al. 2012; Mikula, Riederer et al. 2012; Neff, Sonnentag et al. 2012; Nissen-Lie, Monsen et al. 2012; Owen, Reese et al. 2012; Sturt, Ali et al. 2012; Vázquez 2012; Wiles, Haase et al. 2012; Adam, Meinlschmidt et al. 2013; Baker and Hudson 2013; Brumbaugh and Wood 2013; Burns, Nawacki et al. 2013; Del Re, Fluckiger et al. 2013; Dunn, Callahan et al. 2013; Faasse, Cundy et al. 2013; Feinberg and Willer 2013; Flegel, Kit et al. 2013; Fluckiger, Grosse Holtforth et al. 2013; Heintzelman, Christopher et al. 2013; Helliwell and Huang 2013; Holoien and Fiske 2013; Hyde, Maher et al. 2013; Jackson 2013; Luhmann, Lucas et al. 2013; McCann, Beddoe et al. 2013; McMahan, Jannini et al. 2013; McMartin, Jacka et al. 2013; Mithoefer, Wagner et al. 2013; Molix and Nichols 2013; Myung, Ju et al. 2013; Ronay and Carney 2013; Rong, Chen et al. 2013; Sanchez-Villegas, Field et al. 2013; Sanchez-Villegas and Martinez-Gonzalez 2013; Saslow, Willer et al. 2013; Soto and Luhmann 2013; Stafford, Jackson et al. 2013; Te Morenga, Mallard et al. 2013; Vinson, Turner et al. 2013; Williams, Wilson et al. 2013)

Adam, Y., G. Meinlschmidt, et al. (2013). **"Associations between mental disorders and the common cold in adults: A population-based cross-sectional study."** *Journal of Psychosomatic Research* 74(1): 69-73.
<http://www.sciencedirect.com/science/article/pii/S0022399912002188>

Objective To investigate the association between specific mental disorders and the common cold. Methods Negative binomial regression analyses were applied to examine cross-sectional associations of a broad range of mental disorders according to the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) employing the standardized Munich Composite International Diagnostic Interview, with the self-reported number of occurrences of the common cold during the past 12 months in a representative population sample of 4022 German adults aged 18–65 years. Results After adjustment for covariates including age, gender, and marital and socioeconomic status, having any 12-month DSM-IV mental disorder (incidence rate ratio [IRR] = 1.44, 95% confidence interval [CI] = 1.29–1.60), any substance abuse or dependence (IRR = 1.32, 95% CI = 1.14–1.52), possible psychotic disorder (IRR = 1.43, 95% CI = 1.09–1.87), any mood disorder (IRR = 1.35, 95% CI = 1.16–1.56), any anxiety disorder (IRR = 1.40, 95% CI = 1.23–1.59), or any somatoform disorder (IRR = 1.38, 95% CI = 1.18–1.62) was shown to be positively associated with the number of occurrences of a cold during the past 12 months. Conclusion The presence of a DSM-IV mental disorder was associated with a 44% higher risk of having experienced a cold in the past 12 months. Further studies are needed to explore potential common risk factors for incidence of mental disorders and the common cold, since the pathway connecting them has not been fully determined.

Baker, J. R. and J. L. Hudson (2013). **"Friendship quality predicts treatment outcome in children with anxiety disorders."** *Behaviour Research and Therapy* 51(1): 31-36.
<http://www.sciencedirect.com/science/article/pii/S0005796712001593>

It was examined whether friendship quality (FQ) and friends' anxiety predicted treatment outcome in 116 children with anxiety disorders (72.3% Australian) receiving cognitive behavioural therapy (CBT). Target children and an identified close friend aged between 7 and 13 years (50% female) completed the Friendship Quality Questionnaire (Parker & Asher, 1993) before treatment, and child diagnoses were based on the Anxiety Disorders Interview Schedule for DSM-IV-Child/Parent Version (Silverman & Albano, 1996). Children who reported higher FQ were significantly more likely to be free of their initial primary anxiety disorder and of any anxiety disorder at posttreatment and 6-month follow-up; friend report of FQ and friend's anxiety as measured by the Spence Child Anxiety Scale (Spence, 1998) did not predict treatment outcome. Children with anxiety disorders reporting higher FQ responded better to CBT than children with anxiety disorders reporting lower FQ. FQ measures could help identify anxious children at heightened risk of poor treatment response. Further, good quality friendships may be an important aid in anxious children's treatment response.

Brumbaugh, C. C. and D. Wood (2013). **"Mate preferences across life and across the world."** *Social psychological and personality science* 4(1): 100-107. <http://spp.sagepub.com/content/4/1/100.abstract>

A body of research has demonstrated that people adopt a more interpersonally positive orientation as they age. The current study extends this line of research by examining how mate preferences shift as a function of age. Our worldwide sample rated their attraction to various photographs and completed self-report measures of attraction. Based on a revealed preference measure, the authors found that older individuals preferred people who displayed communal characteristics, and this pattern was fairly universal. On the other hand, self-reported preferences were less consistent. The authors' findings suggest that, in addition to becoming more agreeable with age, people are drawn to others with similarly agreeable qualities. This universal pattern indicates that mate preferences across the life span shift largely toward increased preference for communal characteristics.

Burns, M. N., E. Nawacki, et al. (2013). **"Prospective examination of anxiety and depression before and during confirmed and pseudoexacerbations in patients with multiple sclerosis."** *Psychosomatic Medicine* 75(1): 76-82.
<http://www.psychosomaticmedicine.org/content/75/1/76.abstract>

Objective This study was designed to determine whether pseudoexacerbations and confirmed MS exacerbations are preceded by or concurrent with increased anxiety or depressive symptoms. Methods This was a secondary analysis of 121 patients with MS who were observed for 48 weeks during a randomized controlled trial. Participants completed monthly self-reports on depressive and anxiety symptoms. Patient-reported exacerbations were assessed through a telephone-administered symptom checklist and neurologic examination. Results Both pseudoexacerbations and confirmed exacerbations were associated with concurrent somatic depressive ($\beta = .16$ and $\beta = .33$, respectively; p values $< .05$), affective depressive ($\beta = .17$ [$p = .02$] and $\beta = .12$ [$p = .06$]), and anxiety symptoms ($\beta = .24$ and $\beta = .20$, p values $< .01$), controlling for baseline symptoms. Preexisting somatic and affective depressive symptoms predicted amplified relationships between concurrent confirmed exacerbations and these symptoms ($\beta = .19$ and $\beta = .20$, respectively; p values $< .01$). A standard deviation increase in anxiety symptoms relative to baseline predicted subsequent onset of pseudoexacerbations (odds ratio = 1.54, $p = .02$), whereas increased somatic depressive symptoms predicted confirmed exacerbations (odds ratio = 1.59, $p = .01$). Conclusions Patients

with MS experiencing pseudoexacerbations or confirmed exacerbations should be assessed and monitored for depressive and anxiety symptoms, and confirmed exacerbations are particularly concerning in patients with a history of depression. The psychological or psychiatric antecedents of MS exacerbations generate new hypotheses on etiologies of confirmed exacerbations and pseudoexacerbations. Trial Registration clinicaltrials.gov Identifier: NCT00147446.

Cassibba, R., P. Granqvist, et al. (2012). **"Mothers' attachment security predicts their children's sense of God's closeness."** *Attachment & Human Development* 15(1): 51-64. <http://dx.doi.org/10.1080/14616734.2013.743253>

The current research reports that mothers' security of attachment predicts their children's sense of God's closeness. A total of 71 mother-child dyads participated (children's M age = 7.5). Mothers' attachment organization was studied with the Adult Attachment Interview (AAI; Main, Goldwyn, & Hesse, 2003) and their religiosity and attachment to God were measured with questionnaires. Children were told stories about visually represented children in attachment-activating and attachment-neutral situations, and placed a God symbol on a felt board to represent God's closeness to the fictional children. Children of secure mothers placed the God symbol closer ($d = .78$) than children of insecure mothers across both types of situations, suggesting that children's experiences with secure-insecure mothers generalize to their sense of God's closeness. Also, girls (but not boys) placed the God symbol closer in attachment-activating than in attachment-neutral situations, giving partial support for an attachment normative God-as-safe-haven model. Finally, mothers' religiosity and attachment to God were unrelated to child outcomes.

Chalder, M., N. J. Wiles, et al. (2012). **"A pragmatic randomised controlled trial to evaluate the cost-effectiveness of a physical activity intervention as a treatment for depression: The treating depression with physical activity (TREAD) trial."** *Health Technol Assess* 16(10): 1-164, iii-iv. <http://www.ncbi.nlm.nih.gov/pubmed/22398106>

OBJECTIVE: The TREATing Depression with physical activity (TREAD) study investigated the cost-effectiveness of a physical activity intervention, in addition to usual general practitioner care, as a treatment for people with depression. DESIGN: An individually randomised, pragmatic, multicentre randomised controlled trial with follow-up at 4, 8 and 12 months. A subset of participants took part in a qualitative study that investigated the acceptability and perceived benefits of the intervention. SETTING: General practices in the Bristol and Exeter areas. PARTICIPANTS: Aged 18-69 years with an International Statistical Classification of Diseases and Related Health Problems, 10th Edition (ICD-10) diagnosis of depression and scoring ≥ 14 on the Beck Depression Inventory (BDI). Those who were unable to complete self-administered questionnaires in English, with medical contraindications to physical activity or with psychosis, bipolar disorder or serious drug abuse were excluded. INTERVENTIONS: We devised an intervention designed to encourage choice and autonomy in the adoption of physical activity. It consisted of up to three face-to-face and ten telephone contacts delivered by a trained physical activity facilitator over an 8-month period. MAIN OUTCOME MEASURES: The primary outcome was the BDI score measured at 4 months. Secondary outcomes included depressive symptoms over the 12 months and quality of life, antidepressant use and level of physical activity. RESULTS: The study recruited 361 patients, with 182 randomised to the intervention arm and 179 to the usual care arm; there was 80% retention at the 4-month follow-up. The intervention group had a slightly lower BDI score at 4 months [-0.54, 95% confidence interval (CI) -3.06 to 1.99] but there was no evidence that the intervention improved outcome for depression. Neither was there any evidence to suggest a difference in the prescription of or self-reported use of antidepressants. However, the amount of physical activity undertaken by those who had received the intervention was increased (odds ratio 2.3, 95% CI 1.3 to 3.9) and was sustained beyond the end of the intervention. From a health-care perspective, the intervention group was more costly than the usual care group, with the cost of the intervention pound220 per person on average. It is therefore extremely unlikely that the intervention is cost-effective as a treatment for depression using current willingness-to-pay thresholds. CONCLUSIONS: This physical activity intervention is very unlikely to lead to any clinical benefit in terms of depressive symptoms or to be a cost-effective treatment for depression. Previous research has reported some benefit and there are three possible reasons for this discrepancy: first, even though the intervention increased self-reported physical activity, the increase in activity was not sufficiently large to lead to a measurable influence; second, only more vigorous activity might be of benefit; and third, previous studies had recruited individuals with a pre-existing commitment to physical activity. Future research is needed to identify and explain the mechanisms by which depression might be effectively treated, including, in particular, specific guidance on the optimum type, intensity and duration of physical activity required to produce a therapeutic effect. TRIAL REGISTRATION: Current Controlled Trials ISRCTN16900744. FUNDING: This project was funded by the NIHR Health Technology Assessment programme and will be published in full in Health Technology Assessment; Vol. 16, No. 10. See the HTA programme website for further project information.

Cox, G. R., P. Callahan, et al. (2012). **"Psychological therapies versus antidepressant medication, alone and in combination for depression in children and adolescents."** *Cochrane Database Syst Rev* 11: CD008324. <http://www.ncbi.nlm.nih.gov/pubmed/23152255>

BACKGROUND: Depressive disorders are common in children and adolescents and, if left untreated, are likely to recur in adulthood. Depression is highly debilitating, affecting psychosocial, family and academic functioning. OBJECTIVES: To evaluate the effectiveness of psychological therapies and antidepressant medication, alone and in combination, for the treatment of depressive disorder in children and adolescents. We have examined clinical outcomes including remission, clinician and self reported depression measures, and suicide-related outcomes. SEARCH METHODS: We searched the Cochrane Depression, Anxiety and Neurosis Review Group's Specialised Register (CCDANCTR) to 11 November 2011. This register contains reports of relevant randomised controlled trials (RCTs) from the Cochrane Central Register of Controlled Trials (CENTRAL), MEDLINE (1950 to date), EMBASE (1974 to date), and PsycINFO (1967 to date). SELECTION CRITERIA: RCTs were eligible for inclusion if they compared i) any psychological therapy with any antidepressant medication, or ii) a combination of psychological therapy and antidepressant medication with a psychological therapy alone, or an antidepressant medication alone, or iii) a combination of psychological therapy and antidepressant medication with a placebo or 'treatment as usual', or (iv) a combination of psychological therapy and antidepressant medication with a psychological therapy or antidepressant medication plus a placebo. We included studies if they involved participants aged between 6 and 18 years, diagnosed by a clinician as having Major Depressive Disorder (MDD) based on Diagnostic and Statistical Manual (DSM) or International Classification of Diseases (ICD) criteria. DATA COLLECTION AND ANALYSIS: Two review authors independently selected studies, extracted data and assessed the quality of the studies. We applied a random-effects meta-analysis, using the odds ratio (OR) to describe dichotomous outcomes, mean difference (MD) to describe continuous outcomes when the same measures were used, and standard mean difference (SMD) when outcomes were measured on different scales. MAIN RESULTS: We included ten studies, involving 1235 participants in this review. Studies recruited participants with different severities of disorder and with a variety of comorbid disorders, including anxiety and substance use disorder, therefore limiting the comparability of the results. Regarding the risk of bias in studies, half the studies had adequate allocation concealment (there was insufficient information to determine allocation concealment in the remainder), outcome assessors were blind to the participants' intervention in six studies, and in general, studies reported on incomplete data analysis methods, mainly using intention-to-treat (ITT) analyses. For the majority of outcomes there were no statistically significant differences between the interventions compared. There was limited evidence

(based on two studies involving 220 participants) that antidepressant medication was more effective than psychotherapy on measures of clinician defined remission immediately post-intervention (odds ratio (OR) 0.52, 95% confidence interval (CI) 0.27 to 0.98), with 67.8% of participants in the medication group and 53.7% in the psychotherapy group rated as being in remission. There was limited evidence (based on three studies involving 378 participants) that combination therapy was more effective than antidepressant medication alone in achieving higher remission from a depressive episode immediately post-intervention (OR 1.56, 95% CI 0.98 to 2.47), with 65.9% of participants treated with combination therapy and 57.8% of participants treated with medication, rated as being in remission. There was no evidence to suggest that combination therapy was more effective than psychological therapy alone, based on clinician rated remission immediately post-intervention (OR 1.82, 95% CI 0.38 to 8.68). Suicide-related Serious Adverse Events (SAEs) were reported in various ways across studies and could not be combined in meta-analyses. However suicidal ideation specifically was generally measured and reported using standardised assessment tools suitable for meta-analysis. In one study involving 188 participants, rates of suicidal ideation were significantly higher in the antidepressant medication group (18.6%) compared with the psychological therapy group (5.4%) (OR 0.26, 95% CI 0.09 to 0.72) and this effect appeared to remain at six to nine months (OR 1.27, 95% CI 0.68 to 2.36), with 13.6% of participants in the medication group and 3.9% of participants in the psychological therapy group reporting suicidal ideation. It was unclear what the effect of combination therapy was compared with either antidepressant medication alone or psychological therapy alone on rates of suicidal ideation. The impact of any of the assigned treatment packages on drop out was also mostly unclear across the various comparisons in the review. Limited data and conflicting results based on other outcome measures make it difficult to draw conclusions regarding the effectiveness of any specific intervention based on these outcomes. **AUTHORS' CONCLUSIONS:** There is very limited evidence upon which to base conclusions about the relative effectiveness of psychological interventions, antidepressant medication and a combination of these interventions. On the basis of the available evidence, the effectiveness of these interventions for treating depressive disorders in children and adolescents cannot be established. Further appropriately powered RCTs are required.

Del Re, A. C., C. Fluckiger, et al. (2013). **"Monitoring mindfulness practice quality: An important consideration in mindfulness practice."** *Psychother Research* 23(1): 54-66. <http://www.ncbi.nlm.nih.gov/pubmed/23046287>

Abstract Mindfulness-Based Stress Reduction (MBSR) is an experientially based group intervention empirically supported to reduce psychological symptomology. Although MBSR has shown to be an effective intervention, little is known about which facets of the intervention are important in producing positive outcomes. This study tested several aspects of mindfulness practice (total practice duration, practice frequency and practice quality) with the primary focus being on validating (i.e., predictive and convergent validity) a new measure of mindfulness practice quality (PQ-M). The PQ-M fit a two-factor solution via a Maximum Likelihood Exploratory Factor Analysis (n=99). Using longitudinal multilevel modeling on a smaller subsample (n=19), preliminary support was found for changes in practice quality over the course of the MBSR intervention. Further, change in practice quality was associated with improvements in psychological symptoms. While this study was exploratory, these findings suggest that practice quality is a relevant factor to promote positive outcomes and may guide mindfulness instructors in providing highly tailored interventions.

Dunn, R., J. L. Callahan, et al. (2013). **"Effects of pre-session centering for therapists on session presence and effectiveness."** *Psychotherapy Research* 23(1): 78-85. <http://dx.doi.org/10.1080/10503307.2012.731713>

The present study tested whether engaging in a mindfulness centering exercise 5 minutes before a session could have a positive impact on therapy, in particular on the therapists' ability to remain present in session and on session outcomes. Results indicated that therapists perceived themselves as being more present in session when they prepared for their sessions by engaging in a mindfulness centering exercise ($d = .45$), while clients perceived their therapists as being highly present regardless of whether their therapist completed the mindfulness centering exercise. Clients did, however, perceive the sessions as being more effective when their therapists engaged in the mindfulness centering exercise prior to the start of the session ($d = .52$).

Faasse, K., T. Cundy, et al. (2013). **"The effect of an apparent change to a branded or generic medication on drug effectiveness and side effects."** *Psychosomatic Medicine* 75(1): 90-96. <http://www.psychosomaticmedicine.org/content/75/1/90.abstract>

Objective Generic medications are associated with reduced perceived effectiveness, increased perceived adverse effects, and increased rates of nonadherence compared with brand-name medications. This study examined the effect of an apparent medication formulation change on subjective and objective measures of medication effectiveness and medication side effects. Methods Sixty-two university students participated in a study purportedly testing the effectiveness of fast-acting β -blocker medications in reducing preexamination anxiety. All tablets were placebos. In session 1, all participants received a yellow tablet ("Betaprol"). In session 2, participants were randomly allocated to receive Betaprol (no change condition) or a white tablet labeled either as "Novaprol" (branded change condition) or "Generic" (generic change condition). Blood pressure and state anxiety were measured before and after tablet ingestion. Side effects attributed to medication were assessed. Results The no change group showed significantly greater decreases in systolic blood pressure (mean [M] [standard deviation] = -7.72 mm Hg, standard error [SE] = 1.45) than the branded change ($M = -2.75$ mm Hg, SE = 1.44, $p = .02$) and generic change ($M = -3.26$ mm Hg, SE = 1.45, $p = .03$) groups. The no-change group showed significantly greater decreases in state anxiety ($M = -1.53$, SE = 0.33) than the branded change ($M = -0.50$, SE = 0.33, $p = .03$) and generic change ($M = -0.52$, SE = 0.33, $p = .04$) groups. Significantly more side effects were attributed to the medication in the generic change ($M = 1.83$, SE = 0.23) (but not the branded change) condition when compared with the no change condition ($M = 0.87$, SE = 0.31, $p = .03$). Conclusions Medication formulation change, particularly to generic medication, seems to be associated with reduced subjective and objective measures of medication effectiveness and increased side effects.

Feinberg, M. and R. Willer (2013). **"The moral roots of environmental attitudes."** *Psychological Science* 24(1): 56-62. <http://pss.sagepub.com/content/24/1/56.abstract>

Americans' attitudes about the environment are highly polarized, but it is unclear why this is the case. We conducted five studies to examine this issue. Studies 1a and 1b demonstrated that liberals, but not conservatives, view the environment in moral terms and that this tendency partially explains the relation between political ideology and environmental attitudes. Content analyses of newspaper op-eds (Study 2a) and public-service announcements (Study 2b) found that contemporary environmental discourse is based largely on moral concerns related to harm and care, which are more deeply held by liberals than by conservatives. However, we found that reframing proenvironmental rhetoric in terms of purity, a moral value resonating primarily among conservatives, largely eliminated the difference between liberals' and conservatives' environmental attitudes (Study 3). These results establish the importance of moralization as a cause of polarization on environmental attitudes and suggest that reframing environmental discourse in different moral terms can reduce the gap between liberals and conservatives in environmental concern.

Festini, S. B., A. A. Hartley, et al. (2012). **"Assigned value improves memory of proper names."** *Memory*: 1-11. <http://dx.doi.org/10.1080/09658211.2012.747613>

Names are more difficult to remember than other personal information such as occupations. The current research examined the influence of assigned point value on memory and metamemory judgements for names and occupations to determine whether incentive can improve recall of proper names. In Experiment 1 participants studied face-name and face-occupation pairs assigned 1 or 10 points, made judgements of learning, and were given a cued recall test. High-value names were recalled more often than low-value names. However, recall of occupations was not influenced by value. In Experiment 2 meaningless nonwords were used for both names and occupations. The name difficulty disappeared, and value influenced recall of both names and occupations. Thus value similarly influenced names and occupations when meaningfulness was held constant. In Experiment 3 participants were required to use overt rote rehearsal for all items. Value did not boost recall of high-value names, suggesting that differential processing could not be implemented to improve memory. Thus incentives may improve memory for proper names by motivating people to engage in selective rehearsal and effortful elaborative processing. (see *BPS Research Digest* comment at <http://www.bps-research-digest.blogspot.co.uk/2013/01/boost-your-memory-for-names-by-making.html>).

Flegal, K. M., B. K. Kit, et al. (2013). **"Association of all-cause mortality with overweight and obesity using standard body mass index categories: A systematic review and meta-analysis."** *JAMA* 309(1): 71-82. <http://dx.doi.org/10.1001/jama.2012.113905>

Importance Estimates of the relative mortality risks associated with normal weight, overweight, and obesity may help to inform decision making in the clinical setting. **Objective** To perform a systematic review of reported hazard ratios (HRs) of all-cause mortality for overweight and obesity relative to normal weight in the general population. **Data Sources** PubMed and EMBASE electronic databases were searched through September 30, 2012, without language restrictions. **Study Selection** Articles that reported HRs for all-cause mortality using standard body mass index (BMI) categories from prospective studies of general populations of adults were selected by consensus among multiple reviewers. Studies were excluded that used nonstandard categories or that were limited to adolescents or to those with specific medical conditions or to those undergoing specific procedures. PubMed searches yielded 7034 articles, of which 141 (2.0%) were eligible. An EMBASE search yielded 2 additional articles. After eliminating overlap, 97 studies were retained for analysis, providing a combined sample size of more than 2.88 million individuals and more than 270 000 deaths. **Data Extraction** Data were extracted by 1 reviewer and then reviewed by 3 independent reviewers. We selected the most complex model available for the full sample and used a variety of sensitivity analyses to address issues of possible overadjustment (adjusted for factors in causal pathway) or underadjustment (not adjusted for at least age, sex, and smoking). **Results** Random-effects summary all-cause mortality HRs for overweight (BMI of 25-30), obesity (BMI of ≥ 30), grade 1 obesity (BMI of 30-35), and grades 2 and 3 obesity (BMI of ≥ 35) were calculated relative to normal weight (BMI of 18.5-25). The summary HRs were 0.94 (95% CI, 0.91-0.96) for overweight, 1.18 (95% CI, 1.12-1.25) for obesity (all grades combined), 0.95 (95% CI, 0.88-1.01) for grade 1 obesity, and 1.29 (95% CI, 1.18-1.41) for grades 2 and 3 obesity. These findings persisted when limited to studies with measured weight and height that were considered to be adequately adjusted. The HRs tended to be higher when weight and height were self-reported rather than measured. **Conclusions and Relevance** Relative to normal weight, both obesity (all grades) and grades 2 and 3 obesity were associated with significantly higher all-cause mortality. Grade 1 obesity overall was not associated with higher mortality, and overweight was associated with significantly lower all-cause mortality. The use of predefined standard BMI groupings can facilitate between-study comparisons.

Fluckiger, C., M. Grosse Holtforth, et al. (2013). **"Is the relation between early post-session reports and treatment outcome an epiphenomenon of intake distress and early response? A multi-predictor analysis in outpatient psychotherapy."** *Psychother Res* 23(1): 1-13. <http://www.ncbi.nlm.nih.gov/pubmed/22708616>

Abstract The early phase of psychotherapy has been regarded as a sensitive period in the unfolding of psychotherapy leading to positive outcomes. However, there is disagreement about the degree to which early (especially relationship-related) session experiences predict outcome over and above initial levels of distress and early response to treatment. The goal of the present study was to simultaneously examine outcome at post treatment as a function of (a) intake symptom and interpersonal distress as well as early change in well-being and symptoms, (b) the patient's early session-experiences, (c) the therapist's early session-experiences/interventions, and (d) their interactions. The data of 430 psychotherapy completers treated by 151 therapists were analyzed using hierarchical linear models. Results indicate that early positive intra- and interpersonal session experiences as reported by patients and therapists after the sessions explained 58% of variance of a composite outcome measure, taking intake distress and early response into account. All predictors (other than problem-activating therapists' interventions) contributed to later treatment outcomes if entered as single predictors. However, the multi-predictor analyses indicated that interpersonal distress at intake as well as the early interpersonal session experiences by patients and therapists remained robust predictors of outcome. The findings underscore that early in therapy therapists (and their supervisors) need to understand and monitor multiple interconnected components simultaneously.

Heintzelman, S. J., J. Christopher, et al. (2013). **"Counterfactual thinking about one's birth enhances well-being judgments."** *Journal of Positive Psychology* 8(1): 44-49. <http://dx.doi.org/10.1080/17439760.2012.754925>

Previous research demonstrates that thinking counterfactually about life experiences facilitates meaning making about those events. Two studies extend this work into the well-being domain by examining the effects of writing factually or counterfactually about one's birth on well-being. In Study 1, participants (N=252) were randomly assigned to write factually or counterfactually about their births or the election of Barack Obama and then completed measures of meaning in life and life satisfaction. Writing counterfactually about one's birth led to higher evaluations of life relative to all other groups. In Study 2, (N=98) participants wrote factually or counterfactually about their births and again completed well-being measures. Fate attributions, probability estimates, and feelings of luck were explored as potential mediators. The effect on well-being from Study 1 replicated, but was not driven by any of the measured variables. Implications for existential psychology and well-being research are discussed.

Helliwell, J. F. and H. Huang (2013). **"Comparing the happiness effects of real and on-line friends."** *National Bureau of Economic Research NBER Working Papers* 18690. <http://papers.nber.org/papers/w18690>

A recent large Canadian survey permits us to compare real-time and on-line social networks as sources of subjective well-being. The sample of 5,000 is drawn randomly from an on-line pool of respondents, a group well placed to have and value on-line friendships. We find three key results. First, the number of real-life friends is positively correlated with subjective well-being (SWB) even after controlling for income, demographic variables and personality differences. Doubling the number of friends in real life has an equivalent effect on well-being as a 50% increase in income. Second, the size of online networks is largely uncorrelated with subjective well-being. Third, we find that real-life friends are much more important for people who are single, divorced, separated or widowed than they are for people who are married or living with a partner. Findings from large

international surveys (the European Social Surveys 2002-2008) are used to confirm the importance of real-life social networks to SWB; they also indicate a significantly smaller value of social networks to married or partnered couples.

Holoien, D. S. and S. T. Fiske (2013). **"Downplaying positive impressions: Compensation between warmth and competence in impression management."** *Journal of Experimental Social Psychology* 49(1): 33-41.
<http://www.sciencedirect.com/science/article/pii/S0022103112001813>

The compensation effect demonstrates a negative relationship between the dimensions of warmth and competence in impression formation in comparative contexts. However, does compensation between warmth and competence extend to impression management? Two studies examined whether people actively downplay their warmth in order to appear competent and downplay their competence in order to appear warm. In Studies 1a and 1b, participants selected words pretested to be high or low in warmth and competence to include in an e-mail message to people they wanted to impress. As predicted, participants downplayed their competence when they wanted to appear warm (Study 1a) and downplayed their warmth when they wanted to appear competent (Study 1b). In Studies 2a and 2b, compensation also occurred when participants introduced themselves to another person, as evidenced by the questions they selected to answer about themselves, their self-reported goals, and their open-ended introductions. Compensation occurred uniquely between warmth and competence and not for other dimensions, such as healthiness (Study 2a) and political interest (Study 2b), which suggests that the compensation effect extends beyond a mere zero-sum exchange between dimensions.

Hyde, A. L., J. P. Maher, et al. (2013). **"Enhancing our understanding of physical activity and wellbeing with a lifespan perspective."** *International Journal of Wellbeing* 3(1): 98-115.
<http://www.internationaljournalofwellbeing.org/index.php/ijow/article/view/182>

(Free full text available) Physical activity might be a viable tool for enhancing mental wellbeing because, in general, physical activity has been found to be related to more positive affect and higher satisfaction with life. The way we think, feel, and act changes with age, so it may be that physical activity, wellbeing, and the link between physical activity and wellbeing change with age too. Without consideration for developmental changes, study findings are decontextualized and difficult to translate into people's lives. Aiming to become better equipped to use physical activity as a tool to intervene with wellbeing, we explored a lifespan perspective of physical activity and wellbeing. In this review, we (1) discuss physical activity, wellbeing, and the link between physical activity and wellbeing at different life stages, (2) highlight the need to consider interpersonal and intrapersonal differences in these constructs, and (3) identify gaps in the literature that, if filled, would further enhance our understanding of physical activity and wellbeing across the lifespan.

Jacka, F. N., J. A. Pasco, et al. (2012). **"Dietary intake of fish and PUFA, and clinical depressive and anxiety disorders in women."** *Br J Nutr*: 1-8. <http://www.ncbi.nlm.nih.gov/pubmed/23051591>

Fish and PUFA consumption are thought to play a role in mental health; however, many studies do not take into account multiple sources of PUFA. The present study analysed data from a sample of 935 randomly selected, population-based women aged 20-93 years. A validated and comprehensive dietary questionnaire ascertained the consumption of n-3 and n-6 PUFA. Another assessed fish and energy intake and provided data for a dietary quality score. The General Health Questionnaire-12 (GHQ-12) measured psychological symptoms and a clinical interview (Structured Clinical Interview for DSM-IV-TR Research Version, Non-patient edition) assessed depressive and anxiety disorders. Median dietary intakes of long-chain n-3 fatty acids (310 mg/d) were below suggested dietary target levels. The only PUFA related to categorical depressive and anxiety disorders was DHA. There was a non-linear relationship between DHA intake and depression; those in the second tertile of DHA intake were nearly 70 % less likely to report a current depressive disorder compared to those in the first tertile. The relationship of DHA to anxiety disorders was linear; for those in the highest tertile of DHA intake, the odds for anxiety disorders were reduced by nearly 50 % after adjustments, including adjustment for diet quality scores, compared to the lowest tertile. Those who ate fish less than once per week had higher GHQ-12 scores, and this relationship was particularly obvious in smokers. These are the first observational data to indicate a role for DHA in anxiety disorders, but suggest that the relationship between DHA and depressive disorders may be non-linear.

Jacka, F. N., C. Rethon, et al. (2012). **"Diet quality and mental health problems in adolescents from East London: A prospective study."** *Soc Psychiatry Psychiatr Epidemiol*. <http://www.ncbi.nlm.nih.gov/pubmed/23160714>

PURPOSE: In this study, we aimed to examine the relationship between diet quality and depression in a prospective study of adolescents from varied ethnic and cultural backgrounds. DESIGN: In this prospective cohort study, data were collected at two time points (2001 and 2003) from nearly 3,000 adolescents, aged either 11-12 years or 13-14 years, participating in RELACHS, a study of ethnically diverse and socially deprived young people from East London in the UK. Diet quality was measured from dietary questionnaires, and mental health assessed using the Strengths and Difficulties Questionnaire (SDQ) and the Short Mood and Feelings Questionnaire (SMFQ). RESULTS: In cross-sectional analyses, we found evidence for an association between an unhealthy diet and mental health problems. Compared to those in the lowest quintile of Unhealthy diet score, those in the highest quintile were more than twice as likely to be symptomatic on the SDQ (OR 2.10, 95 %CI 1.38-3.20) after taking all identified confounders into account. There was also some evidence for a cross-sectional inverse association between a measure of healthy diet and mental health problems. A prospective relationship between the highest quintiles of both Healthy (OR 0.63, 95 %CI 0.38-1.05) and Unhealthy (OR 1.75, 95 %CI 1.00-3.06) diet scores and SDQ scores at follow-up was also evident, but was attenuated by final adjustments for confounders. CONCLUSION: This study is concordant with previous observational studies in describing relationships between measures of diet quality and mental health problems in adolescents.

Jackson, T. (2013). **"How science is going sour over sugar."** *British Medical Journal* 346: f307.
<http://www.bmj.com/content/346/bmj.f307>

When the British physiologist John Yudkin published *Pure, White and Deadly*—his 1972 book linking heart disease to sugar consumption—he met strong opposition from the sugar industry. As Geoff Watts writes in this week's BMJ (doi:10.1136/bmj.e7800), "jobs and research grants that might predictably have come Yudkin's way did not materialise." Attacks also included the abrupt cancellation of conferences suspected of promulgating anti-sugar findings, and the book was dismissed as a work of fiction. Enter fat in the role of chief culprit in the rise in heart disease. The fat hypothesis, the chief proponent of which was the American biologist Ancel Keys, influenced policy makers and captured the popular imagination. Meanwhile, writes Watts, medical interest in the sugar hypothesis faded. Yudkin's book fell out of print and low fat became the buzz phrase in nutrition. But in recent years, and with rising obesity becoming one of the main health concerns in the developed world, the sugar hypothesis has started to regain momentum. Recent anti-sugar initiatives include New York city's restriction on the size of fizzy drinks (BMJ 2012;345:e6768). At the end of last year Penguin Books reissued *Pure, White and Deadly*, with a new and enthusiastic introduction by US endocrinologist Robert Lustig, which in this week's BMJ Jack Winkler hails as a medical classic (doi:10.1136/bmj.e8612) ... The sugar versus fat debate is far from over, but the pendulum is now definitely swinging away from fat as the root of all evil. Meanwhile, what overall public health message emerges? Willett and Ludwig conclude:

"Healthcare providers could play an important role by routinely asking about consumption of sugar sweetened drinks as well as tobacco and alcohol use, by setting a good example, and by assuming leadership in public efforts to limit sugar as a source of harm."

Kelleher, I., F. Lynch, et al. (2012). **"Psychotic symptoms in adolescence index risk for suicidal behavior: Findings from 2 population-based case-control clinical interview studies."** *Archives of General Psychiatry* 69(12): 1277-1283. <http://dx.doi.org/10.1001/archgenpsychiatry.2012.164>

Context Recent evidence from both clinical and population research has pointed to psychotic symptoms as potentially important markers of risk for suicidal behavior. However, to our knowledge, there have been no epidemiological studies to date that have reported data on psychotic symptoms and suicidality in individuals who have been clinically assessed for suicidal behavior. **Objectives** To explore associations between psychotic symptoms in nonpsychotic adolescents and risk for suicidal behavior in (1) the general population, (2) adolescents with psychiatric disorder, and (3) adolescents with suicidal ideation. **Design** Two independently conducted case-control clinical interview studies. **Setting** Population-based studies in Ireland. **Participants** Study 1 included 212 adolescents aged 11 to 13 years. Study 2 included 211 adolescents aged 13 to 15 years. **Participants** were recruited from schools. **Main Outcome Measures** Suicidal behavior and psychotic symptoms, assessed by semi-structured diagnostic clinical interview. **Results** Psychotic symptoms were associated with a 10-fold increased odds of any suicidal behavior (ideation, plans, or acts) in both the early and middle adolescence studies (odds ratio [OR], 10.23; 95% CI, 3.25-32.26; $P < .001$ and OR, 10.5; 95% CI, 3.14-35.17; $P < .001$, respectively). Adolescents with depressive disorders who also experienced psychotic symptoms were at a nearly 14-fold increased odds of more severe suicidal behavior (suicide plans and suicide acts) compared with adolescents with depressive disorders who did not experience psychotic symptoms (OR, 13.7; 95% CI, 2.1-89.6). Among all adolescents with suicidal ideation, those who also reported psychotic symptoms had a nearly 20-fold increased odds of suicide plans and suicide acts compared with adolescents with suicidal ideation who did not report psychotic symptoms (OR, 19.6; 95% CI, 1.8-216.1). **Conclusions** Psychotic symptoms are strongly associated with increased risk for suicidal behavior in the general adolescent population and in adolescents with (nonpsychotic) psychiatric disorder. In both studies, an absolute majority of adolescents with more severe suicidal behavior (suicidal plans and acts) reported psychotic symptoms when directly questioned about this as part of a psychiatric interview. Assessment of psychotic symptoms should form a key part of suicide risk assessment.

Kleiman, S. and N. O. Rule (2012). **"Detecting suicidality from facial appearance."** *Social psychological and personality science*. <http://spp.sagepub.com/content/early/2012/11/15/1948550612466115.abstract>

Suicide is a pervasive problem worldwide. In this investigation, we show that individuals can perceive suicidality from facial appearance with accuracy that is significantly greater than chance guessing. Inferences of expected or obvious cues, such as how depressed a person seems, did not lead to accurate judgments. Rather, perceptions of how impulsive an individual appears differentiated suicide victims from living controls. Teasing apart various forms of impulsivity revealed that perceptions of impulsive aggression, distinct from other forms of impulsive behavior (e.g., impulsive buying), distinguished suicide victims from controls. Finally, experienced mental health clinicians did not perform significantly better than laypersons at judging suicidality. Facial appearance may therefore hold cues to suicidality, expanding what is known about the expression and perception of social cues from the face and providing new insights into the relationship between mental health and nonverbal cues.

Koestner, R., T. A. Powers, et al. (2012). **"Distinguishing autonomous and directive forms of goal support: Their effects on goal progress, relationship quality, and subjective well-being."** *Pers Soc Psychol Bull* 38(12): 1609-1620. <http://www.ncbi.nlm.nih.gov/pubmed/22930370>

Three studies examined the relations of autonomy support and directive support to goal progress over 3 months. Autonomy support was defined in terms of empathic perspective-taking, whereas directive support was defined in terms of the provision of positive guidance. Results from Study 1 revealed that autonomy support between romantic partners was significantly positively related to goal progress over 3 months, and that the beneficial effect of autonomy support was mediated by enhanced autonomous goal motivation. Study 2 involved female friend dyads and extended the goal progress results to include both self-reports and reports by peers. Study 3 showed that autonomy support similarly promoted progress at vicarious goals. Across three studies, autonomy support was also significantly associated with improved relationship quality and subjective well-being. Directive support was marginally associated with better goal progress across the three studies and unrelated to relationship quality or well-being.

Luhmann, M., R. E. Lucas, et al. (2013). **"The prospective effect of life satisfaction on life events."** *Social psychological and personality science* 4(1): 39-45. <http://spp.sagepub.com/content/4/1/39.abstract>

Life satisfaction (LS) is prospectively associated with the occurrence of several major events in work and family life. Analyzing longitudinal data from three nationally representative panel studies (Ns between 2,321 and 18,692), the authors found that higher LS is associated with a higher likelihood of marriage and childbirth, and with a lower likelihood of marital separation, job loss, starting a new job, and relocating. These effects held even after controlling for gender, age, socioeconomic status, and the Big Five, and were highly consistent across the three samples. Discrete-time survival analyses indicated that for most of these events, temporary rather than stable mechanisms account for the prospective effect of LS. Together, these findings provide evidence that LS is an important predictor of major life outcomes.

McCann, C. M., E. Beddoe, et al. (2013). **"Resilience in the health professions: A review of recent literature."** *International Journal of Wellbeing* 3(1): 60-81. <http://www.internationaljournalofwellbeing.org/index.php/ijow/article/view/153>

(Free full text) All health professions face numerous stressors within their clinical practice, including time pressures, workload, multiple roles and emotional issues. Frequent workplace stress can impact on the physical and mental wellbeing of health professionals and result in burnout and, in some cases, traumatic stress-like symptoms. These outcomes can impact not only on the wellbeing of health professionals but also on their ability to practise effectively. It is therefore imperative that a preventive approach is adopted. Developing resilience-promoting environments within the health professions can be explored as a means to reduce negative, and increase positive, outcomes of stress in health professionals. This literature review seeks to elucidate the processes and characteristics (both individual and contextual) that enhance resilience in the health professions. It explores relevant literature from five health professions (nursing, social work, psychology, counselling and medicine) to identify the individual and contextual resilience-enhancing qualities of each profession. Commonalities and differences between the disciplines are identified in order to arrive at a definitive explanation of resilience across health professions. Implications for clinical practice and recommendations for further research are also discussed.

McMahon, C. G., E. Jannini, et al. (2013). **"Standard operating procedures in the disorders of orgasm and ejaculation."** *The Journal of Sexual Medicine* 10(1): 204-229. <http://dx.doi.org/10.1111/j.1743-6109.2012.02824.x>

(Free full text available) Introduction. Ejaculatory/orgasmic disorders are common male sexual dysfunctions and include premature ejaculation (PE), inhibited ejaculation, anejaculation, retrograde ejaculation, and anorgasmia. Aim. To provide recommendations and guidelines of the current state-of-the-art knowledge for management of ejaculation/orgasmic disorders in men as standard operating procedures (SOPs) for the treating health care professional. Methods. The International Society of Sexual Medicine Standards Committee assembled over 30 multidisciplinary experts to establish SOPs for various male and female sexual medicine topics. The SOP for the management of disorders of orgasm and ejaculation represents the opinion of four experts from four countries developed in a process over a 2-year period. Main Outcome Measure. Expert opinion was based on grading of evidence-based medical literature, limited expert opinion, widespread internal committee discussion, public presentation, and debate. Results. PE management is largely dependent upon etiology. Lifelong PE is best managed with PE pharmacotherapy (selective serotonin reuptake inhibitors and/or topical anesthetics). The management of acquired PE is etiology specific and may include erectile dysfunction (ED) pharmacotherapy in men with comorbid ED. All men seeking treatment for PE should receive basic psychosexual education. Graded behavioral therapy is indicated when psychogenic or relationship factors are present and is often best combined with PE pharmacotherapy in an integrated treatment program. Delayed ejaculation, anejaculation, and/or anorgasmia may have a biogenic and/or psychogenic etiology. Men with age-related penile hypoanesthesia should be educated, reassured, and instructed in revised sexual techniques which maximize arousal. Retrograde ejaculation is managed by education, patient reassurance, and pharmacotherapy. Conclusions. Additional research is required to further the understanding of the disorders of ejaculation and orgasm.

McMartin, S. E., F. N. Jacka, et al. (2013). **"The association between fruit and vegetable consumption and mental health disorders: Evidence from five waves of a national survey of Canadians."** *Prev Med* 56(3-4): 225-230.
<http://www.ncbi.nlm.nih.gov/pubmed/23295173>

OBJECTIVE: The objective of this study was to examine the association between fruit and vegetable intake (FVI) and mental health disorders. METHOD: This study used data from the Canadian Community Health Survey (CCHS), a repeated cross-sectional study of Canadians with five waves between 2000 until 2009 (n=296,121 aged 12years or older). FVI was assessed based on frequency of consumption. The primary outcome was a major depressive episode over the previous 12months. Logistic regression models adjusted for age, gender, household income, education, physical activity, chronic illness and smoking. RESULTS: In the first wave, greater FVI was significantly associated with lower odds of depression (OR: 0.85 95% CI:0.78-0.92). A combined estimate of all 5 waves demonstrated similar results (OR: 0.72; 95% CI: 0.71-0.75). Relative to those with the lowest FVI, those with the greatest FVI also had significantly lower odds of suffering from distress (OR: 0.87 95% CI: 0.78-0.98). These results were consistent across other waves. Perceived poor mental health status and previous diagnosis of a mood disorder and anxiety disorder also demonstrated statistically significant inverse associations with FVI (all p<0.05). CONCLUSION: These findings suggest a potentially important role of a healthy diet in the prevention of depression and anxiety.

Mikula, G., B. Riederer, et al. (2012). **"Perceived justice in the division of domestic labor: Actor and partner effects."** *Personal Relationships* 19(4): 680-695. <http://dx.doi.org/10.1111/j.1475-6811.2011.01385.x>

This study analyzed the division of domestic labor as a relational phenomenon. Using structural equation modeling with data of dual-earner couples from Austria, Germany, and Switzerland (N = 389), actor and partner effects of perceived distributive and procedural justice in the division on relationship satisfaction were investigated. Experience of relationship conflict was considered as possible mediator between perceived justice and relationship satisfaction. Results with actor effects indicate that perceived justice is relevant only to wives' but not to husbands' relationship satisfaction. Results with partner effects, however, show that wives' perceived justice is associated with husbands' relationship satisfaction through the relationship conflict experienced by husbands. Altogether, this study illustrates the importance of considering the relational character of the division of domestic labor.

Mithoefer, M. C., M. T. Wagner, et al. (2013). **"Durability of improvement in post-traumatic stress disorder symptoms and absence of harmful effects or drug dependency after 3,4-methylenedioxymethamphetamine-assisted psychotherapy: A prospective long-term follow-up study."** *Journal of Psychopharmacology* 27(1): 28-39.
<http://jop.sagepub.com/content/27/1/28.abstract>

We report follow-up data evaluating the long-term outcomes for the first completed trial of 3,4-methylenedioxymethamphetamine (MDMA)-assisted psychotherapy for chronic, treatment-resistant post-traumatic stress disorder (PTSD) (Mithoefer et al., 2011). All of the 19 subjects who received MDMA-assisted treatment in the original trial participated in the long-term follow-up (LTFU), with 16 out of 19 completing all of the long-term outcome measures, which were administered from 17 to 74 months after the original study's final MDMA session (mean = 45.4; SD = 17.3). Our primary outcome measure used was the Clinician-Administered PTSD Scale (CAPS). Secondary outcome measures were the Impact of Events Scale-Revised (IES-R) and the Neuroticism Extroversion Openness Personality Inventory-Revised (NEO PI-R) Personality Inventory. We also collected a long-term follow-up questionnaire. Results for the 16 CAPS completers showed there were no statistical differences between mean CAPS score at LTFU (mean = 23.7; SD = 22.8) (t matched = 0.1; df = 15, p = 0.91) and the mean CAPS score previously obtained at Study Exit (mean = 24.6, SD = 18.6). On average, subjects maintained statistically and clinically-significant gains in symptom relief, although two of these subjects did relapse. It was promising that we found the majority of these subjects with previously severe PTSD who were unresponsive to existing treatments had symptomatic relief provided by MDMA-assisted psychotherapy that persisted over time, with no subjects reporting harm from participation in the study.

Molix, L. A. and C. P. Nichols (2013). **"Satisfaction of basic psychological needs as a mediator of the relationship between community esteem and wellbeing."** *International Journal of Wellbeing* 3(1): 20-34.
<http://www.internationaljournalofwellbeing.org/index.php/ijow/article/view/175>

(Free full text available) Past research has shown that possessing a strong sense of community or esteem for one's community is positively related to feelings of psychological wellbeing. Much less research has examined what mechanisms may underlie this relationship. Self-determination theory, a theory of human personality and optimal functioning, proposes the existence of three species-typical basic psychological needs (for competence, relatedness, and autonomy), the satisfaction of which is crucial for experiencing wellbeing. We hypothesized that need satisfaction is a mediator of the relationship between feelings of esteem for one's community and several widely employed measures of wellbeing among a sample of residents living in an urban community in the United States. In accord with the primary hypotheses, the results revealed a robust association between community esteem and both hedonic and eudaimonic measures of wellbeing. Furthermore, the associations between community esteem and wellbeing were mediated by self-reported satisfaction of basic psychological needs. This work contributes to an improved understanding of the complex relationship between esteem for one's community and psychological wellbeing and has implications for debates surrounding the benefits and role of community in individuals' lives.

Myung, S. K., W. Ju, et al. (2013). **"Efficacy of vitamin and antioxidant supplements in prevention of cardiovascular disease: Systematic review and meta-analysis of randomised controlled trials."** *BMJ* 346: f10. <http://www.bmj.com/content/346/bmj.f10>

OBJECTIVE: To assess the efficacy of vitamin and antioxidant supplements in the prevention of cardiovascular diseases. DESIGN: Meta-analysis of randomised controlled trials. DATA SOURCES AND STUDY SELECTION: PubMed, EMBASE, the Cochrane Library, Scopus, CINAHL, and ClinicalTrials.gov searched in June and November 2012. Two authors independently reviewed and selected eligible randomised controlled trials, based on predetermined selection criteria. RESULTS: Out of 2240 articles retrieved from databases and relevant bibliographies, 50 randomised controlled trials with 294,478 participants (156,663 in intervention groups and 137,815 in control groups) were included in the final analyses. In a fixed effect meta-analysis of the 50 trials, supplementation with vitamins and antioxidants was not associated with reductions in the risk of major cardiovascular events (relative risk 1.00, 95% confidence interval 0.98 to 1.02; $I(2)=42\%$). Overall, there was no beneficial effect of these supplements in the subgroup meta-analyses by type of prevention, type of vitamins and antioxidants, type of cardiovascular outcomes, study design, methodological quality, duration of treatment, funding source, provider of supplements, type of control, number of participants in each trial, and supplements given singly or in combination with other supplements. Among the subgroup meta-analyses by type of cardiovascular outcomes, vitamin and antioxidant supplementation was associated with a marginally increased risk of angina pectoris, while low dose vitamin B(6) supplementation was associated with a slightly decreased risk of major cardiovascular events. Those beneficial or harmful effects disappeared in subgroup meta-analysis of high quality randomised controlled trials within each category. Also, even though supplementation with vitamin B(6) was associated with a decreased risk of cardiovascular death in high quality trials, and vitamin E supplementation with a decreased risk of myocardial infarction, those beneficial effects were seen only in randomised controlled trials in which the supplements were supplied by the pharmaceutical industry. CONCLUSION: There is no evidence to support the use of vitamin and antioxidant supplements for prevention of cardiovascular diseases.

Neff, A., S. Sonnentag, et al. (2012). **"What's mine is yours: The crossover of day-specific self-esteem."** *Journal of Vocational Behavior* 81(3): 385-394. <http://www.sciencedirect.com/science/article/pii/S0001879112001388>

This diary study examines the daily crossover of self-esteem within working couples. By integrating self-esteem research into the crossover framework, we hypothesized that the day-specific self-esteem experienced by one partner after work crosses over to the other partner. Furthermore, we proposed that this daily crossover process is moderated by the other partner's general level of self-esteem and empathic concern. We conducted a diary study over five consecutive working days among 102 working couples. Multilevel analyses using the actor-partner interdependence model supported our hypotheses. Day-specific self-esteem experienced by one partner after work crossed over to the other partner in the evening, particularly when this partner had a generally low level of self-esteem and a generally high level of empathic concern.

Nissen-Lie, H. A., J. T. Monsen, et al. (2012). **"Psychotherapists' self-reports of their interpersonal functioning and difficulties in practice as predictors of patient outcome."** *Psychotherapy Research* 23(1): 86-104. <http://dx.doi.org/10.1080/10503307.2012.735775>

The need for psychotherapy research to understand the therapist effect has been emphasized in several studies. In a large naturalistic study (255 patients, 70 therapists), this topic was addressed using therapists' self-assessed difficulties in practice and interpersonal functioning in therapeutic work as predictors of patient outcome in three conventional outcome measures. Three-level growth curve analyses were employed to assess whether the therapist characteristics, measured by the Development of Psychotherapists Common Core Questionnaire (Orlinsky & Ronnestad, 2005), predicted the level of and change in patient symptom distress (SCL-90R), interpersonal problems (IIP-64), and observer-rated global functioning (GAF). Preliminary estimates of therapist effects in patient change indicated that 4% of change in general symptom distress (GSI), almost 21% of change in IIP global scores, and 28% of growth in GAF could be attributed to therapist differences. The results also demonstrated that certain therapist self-perceptions were clearly related to patient outcome. For example, therapists' scores on a type of difficulty in practice called 'Professional self-doubt' (PSD) (denoting doubt about one's professional efficacy) were positively associated with change in IIP global scores. It is suggested that therapists' self-reported functioning can be of value in understanding how individual therapists contribute to therapeutic change although their influence is not necessarily exerted in expected directions.

Owen, J., R. J. Reese, et al. (2012). **"Alliance in action: A new measure of clients' perceptions of therapists' alliance activity."** *Psychotherapy Research* 23(1): 67-77. <http://dx.doi.org/10.1080/10503307.2012.731088>

We developed a new measure, Alliance in Action (AiA), which assesses clients' perceptions of therapist behavior related to fostering and maintaining the alliance. Clients (N=170) were treated by 42 therapists. All clients were currently in therapy. The results of a factor analysis revealed four subscales to the AiA, which reflected clients' perceptions of their therapists' behavior to monitor the therapeutic relationship, the goals for therapy, and progress towards client goals. A fourth subscale emerged that reflected clients' perceptions of therapist avoidance of eliciting feedback. The AiA subscales demonstrated alphas above .70 and they were associated with client-rated alliance and session outcomes in univariate correlation tests. In multilevel models, three of the four subscales were associated with alliance and session outcomes. The AiA may be helpful in understanding how the therapeutic alliance functions in therapy.

Ronay, R. and D. R. Carney (2013). **"Testosterone's negative relationship with empathic accuracy and perceived leadership ability."** *Social psychological and personality science* 4(1): 92-99. <http://spp.sagepub.com/content/4/1/92.abstract>

Two studies examine the relationship between naturally occurring levels of circulating testosterone and empathic accuracy. In Study 1, the authors find that higher endogenous levels of testosterone are negatively related to the accuracy with which people infer the thoughts and feelings of others. In Study 2, the authors use 360 data collected in the field to show that individuals with higher levels of endogenous testosterone are evaluated by their real-world professional colleagues as functioning with lower levels of empathic accuracy. Furthermore, the authors report evidence that this negative relationship between testosterone and perceived empathic accuracy has downstream consequences for perceptions of one's leadership skills and abilities.

Rong, Y., L. Chen, et al. (2013). **"Egg consumption and risk of coronary heart disease and stroke: Dose-response meta-analysis of prospective cohort studies."** *BMJ* 346: e8539. <http://www.ncbi.nlm.nih.gov/pubmed/23295181>

OBJECTIVE: To investigate and quantify the potential dose-response association between egg consumption and risk of coronary heart disease and stroke. DESIGN: Dose-response meta-analysis of prospective cohort studies. DATA SOURCES: PubMed and Embase prior to June 2012 and references of relevant original papers and review articles. ELIGIBILITY CRITERIA FOR SELECTING STUDIES: Prospective cohort studies with relative risks and 95% confidence intervals of coronary heart disease or stroke for three or more categories of egg consumption. RESULTS: Eight articles with 17 reports (nine for coronary heart disease, eight for stroke) were eligible for inclusion in the meta-analysis (3,081,269 person years and 5847 incident cases for

coronary heart disease, and 4,148,095 person years and 7579 incident cases for stroke). No evidence of a curve linear association was seen between egg consumption and risk of coronary heart disease or stroke ($P=0.67$ and $P=0.27$ for non-linearity, respectively). The summary relative risk of coronary heart disease for an increase of one egg consumed per day was 0.99 (95% confidence interval 0.85 to 1.15; $P=0.88$ for linear trend) without heterogeneity among studies ($P=0.97$, $I(2)=0\%$). For stroke, the combined relative risk for an increase of one egg consumed per day was 0.91 (0.81 to 1.02; $P=0.10$ for linear trend) without heterogeneity among studies ($P=0.46$, $I(2)=0\%$). In a subgroup analysis of diabetic populations, the relative risk of coronary heart disease comparing the highest with the lowest egg consumption was 1.54 (1.14 to 2.09; $P=0.01$). In addition, people with higher egg consumption had a 25% (0.57 to 0.99; $P=0.04$) lower risk of developing hemorrhagic stroke. CONCLUSIONS: Higher consumption of eggs (up to one egg per day) is not associated with increased risk of coronary heart disease or stroke. The increased risk of coronary heart disease among diabetic patients and reduced risk of hemorrhagic stroke associated with higher egg consumption in subgroup analyses warrant further studies.

Sanchez-Villegas, A., A. E. Field, et al. (2013). **"Perceived and actual obesity in childhood and adolescence and risk of adult depression."** *J Epidemiol Community Health* 67(1): 81-86. <http://www.ncbi.nlm.nih.gov/pubmed/22766776>

BACKGROUND: Obesity in childhood and adolescence has important health consequences, but its relation to risk of adult depression remains uncertain. OBJECTIVE: To examine the effect of perceived and actual obesity during childhood and adolescence on prevalence and incidence of adult depression risk. METHODS: Cohort study of 91,798 female registered nurses followed longitudinally for 12 years. RESULTS: As compared with lean women of the same age, women in the two highest categories of body shape at age 10 had both higher prevalence (OR=2.59, 95% CI 1.46 to 4.61) and incidence (OR=2.01, 95% CI 1.08 to 3.71) of depression. Similar results were obtained for body shape at age 20 (OR=3.43 for prevalence and OR=2.03 for incidence) and for body mass index (BMI) at age 18 (OR=2.92 for BMI ≥ 40 kg/m²). These associations remained significant after adjustment for multiple confounders. CONCLUSION: These results indicate that childhood-adolescence obesity is a strong and independent risk factor for adult depression.

Sanchez-Villegas, A. and M. Martinez-Gonzalez (2013). **"Diet, a new target to prevent depression?"** *BMC Medicine* 11(1): 3. <http://www.biomedcentral.com/1741-7015/11/3>

(Available in free full text): BACKGROUND: Research on the role of diet in the prevention of depression is scarce. Some evidence suggests that depression shares common mechanisms with cardiovascular disease. DISCUSSION: Before considering the role of diet in the prevention of depression, several points need to be considered. First, in general, evidence has been found for the effects of isolated nutrients or foods, and not for dietary patterns. Second, most previous studies have a cross-sectional design. Third, information is generally collected through questionnaires, increasing the risk of misclassification bias. Fourth, adequate control of confounding factors in observational studies is mandatory. SUMMARY: Only a few cohort studies have analyzed the relationship between overall dietary patterns, such as the Mediterranean diet, and primary prevention of depression. They have found similar results to those obtained for the role of this dietary pattern in cardiovascular disease. To confirm the findings obtained in these initial cohort studies, we need further observational longitudinal studies with improved methodology, as well as large randomized primary prevention trials, with interventions based on changes in the overall food pattern, that include participants at high risk of mental disorders.

Saslow, L. R., R. Willer, et al. (2013). **"My brother's keeper?: Compassion predicts generosity more among less religious individuals."** *Social psychological and personality science* 4(1): 31-38. <http://spp.sagepub.com/content/4/1/31.abstract>

Past research argues that religious commitments shape individuals' prosocial sentiments, including their generosity and solidarity. But what drives the prosociality of less religious people? Three studies tested the hypothesis that, with fewer religious expectations of prosociality, less religious individuals' levels of compassion will play a larger role in their prosocial tendencies. In Study 1, religiosity moderated the relationship between trait compassion and prosocial behavior such that compassion was more critical to the generosity of less religious people. In Study 2, a compassion induction increased generosity among less religious individuals but not among more religious individuals. In Study 3, state feelings of compassion predicted increased generosity across a variety of economic tasks for less religious individuals but not among more religious individuals. These results suggest that the prosociality of less religious individuals is driven to a greater extent by levels of compassion than is the prosociality of the more religious.

Soto, C. J. and M. Luhmann (2013). **"Who can buy happiness?: Personality traits moderate the effects of stable income differences and income fluctuations on life satisfaction."** *Social psychological and personality science* 4(1): 46-53. <http://spp.sagepub.com/content/4/1/46.abstract>

The present research tested whether the Big Five personality dimensions—extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience—moderate the effects of income on life satisfaction. The authors analyzed data from three large-sample, nationally representative, longitudinal studies: the British Household Panel Survey, the German Socio-Economic Panel Study, and the Household Income and Labour Dynamics in Australia Survey. Neuroticism consistently moderated the effects of both stable between-person income differences and within-person income fluctuations on life satisfaction. Specifically, income predicted satisfaction more strongly for highly neurotic individuals than for their emotionally stable peers. These findings illustrate that the effects of life circumstances on subjective well-being can vary considerably across individuals, depending on their basic personality traits.

Stafford, M. R., H. Jackson, et al. (2013). **"Early interventions to prevent psychosis: Systematic review and meta-analysis."** *BMJ* 346: f185. <http://www.bmj.com/content/346/bmj.f185>

OBJECTIVE: To determine whether any psychological, pharmacological, or nutritional interventions can prevent or delay transition to psychotic disorders for people at high risk. DESIGN: Systematic review and meta-analysis. DATA SOURCES: Embase, Medline, PreMedline, PsycINFO, and CENTRAL were searched to November 2011 without restriction to publication status. REVIEW METHODS: Randomised trials comparing any psychological, pharmacological, nutritional, or combined intervention with usual services or another treatment. Studies of participants with a formal diagnosis of schizophrenia or bipolar disorder were excluded. Studies were assessed for bias, and relevant limitations were considered in summarising the results. RESULTS: 11 trials including 1246 participants and eight comparisons were included. Median sample size of included trials was 81 (range 51-288). Meta-analyses were performed for transition to psychosis, symptoms of psychosis, depression, and mania; quality of life; weight; and discontinuation of treatment. Evidence of moderate quality showed an effect for cognitive behavioural therapy on reducing transition to psychosis at 12 months (risk ratio 0.54 (95% confidence interval 0.34 to 0.86); risk difference -0.07 (-0.14 to -0.01). Very low quality evidence for omega-3 fatty acids and low to very low quality evidence for integrated psychotherapy also indicated that these interventions were associated with reductions in transition to psychosis at 12 months. CONCLUSIONS: Although evidence of benefits for any specific intervention is not conclusive, these findings suggest that it might

be possible to delay or prevent transition to psychosis. Further research should be undertaken to establish conclusively the potential for benefit of psychological interventions in the treatment of people at high risk of psychosis.

Sturt, J., S. Ali, et al. (2012). **"Neurolinguistic programming: A systematic review of the effects on health outcomes."** *Br J Gen Pract* 62(604): e757-764. <http://www.ncbi.nlm.nih.gov/pubmed/23211179>

BACKGROUND: Neurolinguistic programming (NLP) in health care has captured the interest of doctors, healthcare professionals, and managers. **AIM:** To evaluate the effects of NLP on health-related outcomes. **DESIGN AND SETTING:** Systematic review of experimental studies. **METHOD:** The following data sources were searched: MEDLINE, PsycINFO, ASSIA, AMED, CINAHL, Web of Knowledge, CENTRAL, NLP specialist databases, reference lists, review articles, and NLP professional associations, training providers, and research groups. **RESULTS:** Searches revealed 1459 titles from which 10 experimental studies were included. Five studies were randomised controlled trials (RCTs) and five were pre-post studies. Targeted health conditions were anxiety disorders, weight maintenance, morning sickness, substance misuse, and claustrophobia during MRI scanning. NLP interventions were mainly delivered across 4-20 sessions although three were single session. Eighteen outcomes were reported and the RCT sample sizes ranged from 22 to 106. Four RCTs reported no significant between group differences with the fifth finding in favour of the NLP arm ($F = 8.114, P < 0.001$). Three RCTs and five pre-post studies reported within group improvements. Risk of bias across all studies was high or uncertain. **CONCLUSION:** There is little evidence that NLP interventions improve health-related outcomes. This conclusion reflects the limited quantity and quality of NLP research, rather than robust evidence of no effect. There is currently insufficient evidence to support the allocation of NHS resources to NLP activities outside of research purposes.

Te Morenga, L., S. Mallard, et al. (2013). **"Dietary sugars and body weight: Systematic review and meta-analyses of randomised controlled trials and cohort studies."** *BMJ* 346: e7492. <http://www.bmj.com/content/346/bmj.e7492>

OBJECTIVE: To summarise evidence on the association between intake of dietary sugars and body weight in adults and children. **DESIGN:** Systematic review and meta-analysis of randomised controlled trials and prospective cohort studies. **DATA SOURCES:** OVID Medline, Embase, PubMed, Cumulative Index to Nursing and Allied Health Literature, Scopus, and Web of Science (up to December 2011). **REVIEW METHODS:** Eligible studies reported the intake of total sugars, intake of a component of total sugars, or intake of sugar containing foods or beverages; and at least one measure of body fatness. Minimum duration was two weeks for trials and one year for cohort studies. Trials of weight loss or confounded by additional medical or lifestyle interventions were excluded. Study selection, assessment, validity, data extraction, and analysis were undertaken as specified by the Cochrane Collaboration and the GRADE working group. For trials, we pooled data for weight change using inverse variance models with random effects. We pooled cohort study data where possible to estimate effect sizes, expressed as odds ratios for risk of obesity or beta coefficients for change in adiposity per unit of intake. **RESULTS:** 30 of 7895 trials and 38 of 9445 cohort studies were eligible. In trials of adults with ad libitum diets (that is, with no strict control of food intake), reduced intake of dietary sugars was associated with a decrease in body weight (0.80 kg, 95% confidence interval 0.39 to 1.21; $P < 0.001$); increased sugars intake was associated with a comparable weight increase (0.75 kg, 0.30 to 1.19; $P = 0.001$). Isoenergetic exchange of dietary sugars with other carbohydrates showed no change in body weight (0.04 kg, -0.04 to 0.13). Trials in children, which involved recommendations to reduce intake of sugar sweetened foods and beverages, had low participant compliance to dietary advice; these trials showed no overall change in body weight. However, in relation to intakes of sugar sweetened beverages after one year follow-up in prospective studies, the odds ratio for being overweight or obese increased was 1.55 (1.32 to 1.82) among groups with the highest intake compared with those with the lowest intake. Despite significant heterogeneity in one meta-analysis and potential bias in some trials, sensitivity analyses showed that the trends were consistent and associations remained after these studies were excluded. **CONCLUSIONS:** Among free living people involving ad libitum diets, intake of free sugars or sugar sweetened beverages is a determinant of body weight. The change in body fatness that occurs with modifying intakes seems to be mediated via changes in energy intakes, since isoenergetic exchange of sugars with other carbohydrates was not associated with weight change.

Vázquez, J. J. (2012). **"Happiness among the garbage: Differences in overall happiness among trash pickers in León (Nicaragua)."** *The Journal of Positive Psychology* 8(1): 1-11. <http://dx.doi.org/10.1080/17439760.2012.743574>

This article analyzes various aspects related to overall happiness expressed by 99 people who make their living in the dumps of León (Nicaragua) ? a group that is difficult to access, heavily stigmatized, and living in extreme poverty. We interviewed all the people living from the garbage in the city of León using a heteroapplied structured interview. In order to gather information on overall happiness, we used an instrument that combined illustrations with explanations by the interviewers. The results show that people in León who make their living by collecting rubbish state that they are happy, have optimistic expectations regarding their future, and show a lack of any relationship between overall happiness and income. The respondents appear to obtain their main sources of happiness in areas of their lives other than the economic and labor spheres, and mainly from areas related to their social and leisure activities.

Vinson, D. C., B. J. Turner, et al. (2013). **"Clinician suspicion of an alcohol problem: An observational study from the aafp national research network."** *The Annals of Family Medicine* 11(1): 53-59. <http://www.annfam.org/content/11/1/53.abstract>

PURPOSE In clinical practice, detection of alcohol problems often relies on clinician suspicion instead of using a screening instrument. We assessed the sensitivity, specificity, and predictive values of clinician suspicion compared with screening-detected alcohol problems in patients. **METHODS** We undertook a cross-sectional study of 94 primary care clinicians' office visits. Brief questionnaires were completed separately after a visit by both clinicians and eligible patients. The patient's anonymous exit questionnaire screened for hazardous drinking based on the Alcohol Use Disorders Identification Test-Consumption (AUDIT-C) and for harmful drinking (alcohol abuse or dependence) based on 2 questions from the Diagnostic and Statistical Manual of Mental Disorders. After the visit, clinicians responded to the question, "Does this patient have problems with alcohol?" with answer options including "yes, hazardous drinking" and "yes, alcohol abuse or dependence." Analyses assessed the associations between patients' responses to screening questions and clinician's suspicions. **RESULTS** Of 2,518 patients with an office visit, 2,173 were eligible, and 1,699 (78%) completed the exit questionnaire. One hundred seventy-one (10.1%) patients had a positive screening test for hazardous drinking (an AUDIT-C score of 5 or greater) and 64 (3.8%) for harmful drinking. Clinicians suspected alcohol problems in 81 patients (hazardous drinking in 37, harmful drinking in 40, and both in 4). The sensitivity of clinician suspicion of either hazardous or harmful drinking was 27% and the specificity was 98%. Positive and negative predictive values were 62% and 92%, respectively. **CONCLUSION** Clinician suspicion of alcohol problems had poor sensitivity but high specificity for identifying patients who had a positive screening test for alcohol problems. These data support the routine use of a screening tool to supplement clinicians' suspicions, which already provide reasonable positive predictive value. (Although incorporating routine screening into primary care is not easy, there are ways to make it simpler, according to the authors. "To increase the feasibility of screening for alcohol problems in practice, a validated single screening question can be used. For example, for the question, 'When was the last time you had more than X drinks in one day?' where X

is 4 for women and 5 for men, an answer of any time in the past 3 months was 86% sensitive and 86% specific in detecting alcohol problems compared with a structured, researcher-administered interview.")

Wiles, N. J., A. M. Haase, et al. (2012). **"Physical activity and depression in adolescents: Cross-sectional findings from the als pac cohort."** *Soc Psychiatry Psychiatr Epidemiol* 47(7): 1023-1033. <http://www.ncbi.nlm.nih.gov/pubmed/21826444>

PURPOSE: Few studies have examined the association between physical activity (PA), measured objectively, and adolescent depressive symptoms. The aim of this study was to determine whether there is an association between objective measures of PA (total PA and time spent in moderate and vigorous PA (MVPA)) and adolescent depressive symptoms. METHODS: Data on 2,951 adolescents participating in ALSPAC were used. Depressive symptoms were measured using the self-report Mood and Feelings Questionnaire (MFQ) (short version). Measures of PA were based on accelerometry. The association between PA and MFQ scores was modelled using ordinal regression. RESULTS: Adolescents who were more physically active (total PA or minutes of MVPA) had a reduced odds of depressive symptoms [OR(adj) total PA (tertiles): medium 0.82 (95% CI: 0.69, 0.97); high 0.69 (95% CI: 0.57, 0.83)]; OR(adj) per 15 min MVPA: 0.92 (95% CI: 0.86, 0.98). In a multivariable model including both total PA and the percentage of time spent in MVPA, total PA was associated with depressive symptoms (OR(adj) total PA (tertiles): medium 0.82 (95% CI: 0.70, 0.98); high 0.70 (95% CI: 0.58, 0.85) but the percentage of time spent in MVPA was not independently associated with depressive symptoms [OR(adj) MVPA (tertiles) medium 1.05 (95% CI: 0.88, 1.24), high 0.91 (95% CI: 0.77, 1.09)]. CONCLUSIONS: The total amount of PA undertaken was associated with adolescent depressive symptoms, but the amount of time spent in MVPA, once total PA was accounted for, was not. If confirmed in longitudinal studies and randomised controlled trials, this would have important implications for public health messages.

Williams, C., P. Wilson, et al. (2013). **"Guided self-help cognitive behavioural therapy for depression in primary care: A randomised controlled trial."** *PLoS One* 8(1): e52735. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3543408/>

(Free full text available) BACKGROUND: Access to Cognitive behavioural therapy (CBT) for depression is limited. One solution is CBT self-help books. Trial Objectives: To assess the impact of a guided self-help CBT book (GSH-CBT) on mood, compared to treatment as usual (TAU). Hypotheses: GSH-CBT will have improved mood and knowledge of the causes and treatment of depression compared to the control receiving TAU. Guided self-help will be acceptable to patients and staff. METHODS AND FINDINGS: Participants: Adults attending seven general practices in Glasgow, UK with a BDI-II score of ≥ 14 . 141 randomised to GSH-CBT and 140 to TAU. Interventions: RCT comparing 'Overcoming Depression: A Five Areas Approach' book plus 3-4 short face to face support appointments totalling up to 2 hours of guided support, compared with general practitioner TAU. Primary outcome: The BDI (II) score at 4 months. Numbers analysed: 281 at baseline, 203 at 4 months (primary outcome), 117 at 12 months. Outcome: Mean BDI-II scores were lower in the GSH-CBT group at 4 months by 5.3 points (2.6 to 7.9, $p < 0.001$). At 4 and 12 months there were also significantly higher proportions of participants achieving a 50% reduction in BDI-II in the GSH-CBT arm. The mean support was 2 sessions with 42.7 minutes for session 1, 41.4 minutes for session 2 and 40.2 minutes of support for session 3. Adverse effects/Harms: Significantly less deterioration in mood in GSH-CBT (2.0% compared to 9.8% in the TAU group for BDI-II category change). LIMITATIONS: Weaknesses: Our follow-up rate of 72.2% at 4 months is better than predicted but is poorer at 12 months (41.6%). In the GSH-CBT arm, around 50% of people attended 2 or fewer sessions. 22% failed to take up treatment. CONCLUSIONS: GSH-CBT is substantially more effective than TAU.