

# **22 action on depression abstracts, april '13**

(Auerbach, Vittinghoff et al. 2013; Bird, Mansell et al. 2013; Copeland, Wolke et al. 2013; Dalgleish, Navrady et al. 2013; Fortney, Pyne et al. 2013; Fountoulakis, Kontis et al. 2013; Henderson and Thornicroft 2013; Houle 2013; Ishak, Balayan et al. 2013; Jonas, Cusack et al. 2013; Kupfer, Kuhl et al. 2013; Luby 2013; Mortensen, Larsson et al. 2013; Myers, Aubuchon-Endsley et al. 2013; O'Neil, Berk et al. 2013; Raes, Griffith et al. 2013; Rai, Lee et al. 2013; Rethorst, Sunderajan et al. 2013; Ross, Grigoriadis et al. 2013; Simon and Ludman 2013; So, Yamaguchi et al. 2013; Stillmaker and Kasser 2013)

Auerbach, A. D., E. Vittinghoff, et al. (2013). **"Perioperative use of selective serotonin reuptake inhibitors and risks for adverse outcomes of surgery."** *JAMA Internal Medicine*: 1-7. <http://dx.doi.org/10.1001/jamainternmed.2013.714>

**Importance** Single-site studies have described an association between use of selective serotonin reuptake inhibitors (SSRIs) and adverse outcomes of surgery. Multicenter studies including a broad range of surgical procedures that explore rare outcomes, such as bleeding and mortality, and that account for indications for administration of SSRIs are needed. **Objective** To determine whether perioperative use of SSRIs is associated with adverse outcomes of surgery in a national sample of patients. **Design** Retrospective study of patients 18 years or older who underwent major surgery from January 1, 2006, through December 31, 2008, at 375 US hospitals. We used multivariable hierarchical models to estimate associations between SSRI use and our outcomes. **Pharmacy data** were used to determine whether a patient received an SSRI in the perioperative period. **Setting** Three hundred seventy-five US hospitals. **Participants** Five hundred thirty thousand four hundred sixteen patients 18 years or older. **Exposure** Perioperative use of SSRIs. **Main Outcomes and Measures** In-hospital mortality, length of stay, readmission at 30 days, bleeding events, transfusions, and incidence of ventricular arrhythmias. **Results** Patients receiving SSRIs were more likely to have obesity, chronic pulmonary disease, or hypothyroidism ( $P < .001$  for each) and more likely to have depression (41.0% vs 6.2%,  $P < .001$ ). After adjustment, patients receiving SSRIs had higher odds of in-hospital mortality (adjusted odds ratio, 1.20 [95% CI, 1.07-1.36]), bleeding (1.09 [1.04-1.15]), and readmission at 30 days (1.22 [1.18-1.26]). Similar results were observed in propensity-matched analyses, although the risk of inpatient mortality was attenuated among patients with depression. Sensitivity analyses suggest that, to invalidate our results, an unmeasured covariate would have to have higher prevalence and be more strongly associated with mortality than any covariate included in our models. **Conclusions and Relevance** Receiving SSRIs in the perioperative period is associated with a higher risk for adverse events. Determining whether patient factors or SSRIs themselves are responsible for elevated risks requires prospective study.

Bird, T., W. Mansell, et al. (2013). **"Is there a core process across depression and anxiety?"** *Cognitive Therapy and Research* 37(2): 307-323. <http://dx.doi.org/10.1007/s10608-012-9475-2>

There is emerging evidence of overlap across cognitive processes. One explanation of this overlap is the presence of a single, higher-order latent process. In this study we tested for a core process and its ability to account for symptoms of depression and anxiety. Using Structural Equation Modeling we compared a model where processes (worry, thought suppression and experiential avoidance) are treated as separate predictors of symptoms (anxiety and depression) against a model where they are represented by one latent factor. These models were applied in three analyses: a cross-sectional student sample; a longitudinal subset of this analogue sample; and a cross-sectional sample of individuals with long-term health conditions. Comparison of the models showed that while the two sets of models provided comparable fits to the data, the single factor models provided a more parsimonious solution. In addition, the latent factor explained a large proportion of variance in all measured processes, suggesting a high degree of overlap between them. It also explained more variance in symptoms than the processes separately. A Confirmatory Factor Analysis further supported a single factor solution, and the item loadings indicated that the core process represented a perceived inability to control negative thinking.

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.

Fortney, J. C., J. M. Pyne, et al. (2013). **"Practice-based versus telemedicine-based collaborative care for depression in rural federally qualified health centers: A pragmatic randomized comparative effectiveness trial."** *Am J Psychiatry* 170(4): 414-425. <http://ajp.psychiatryonline.org/article.aspx?articleid=1654939>

**OBJECTIVE:** Practice-based collaborative care is a complex evidence-based practice that is difficult to implement in smaller primary care practices that lack on-site mental health staff. Telemedicine-based collaborative care virtually co-locates and integrates mental health providers into primary care settings. The objective of this multisite randomized pragmatic comparative effectiveness trial was to compare the outcomes of patients assigned to practice-based and telemedicine-based collaborative care. **METHOD:** From 2007 to 2009, patients at federally qualified health centers serving medically underserved populations were screened for depression, and 364 patients who screened positive were enrolled and followed for 18 months. Those assigned to practice-based collaborative care received evidence-based care from an on-site primary care provider and a nurse care manager. Those assigned to telemedicine-based collaborative care received evidence-based care from an on-site primary care provider and an off-site team: a nurse care manager and a pharmacist by telephone, and a psychologist and a psychiatrist via videoconferencing. The primary clinical outcome measures were treatment response, remission, and change in depression severity. **RESULTS:** Significant group main effects were observed for both response (odds ratio=7.74, 95% CI=3.94-15.20) and remission (odds ratio=12.69, 95% CI=4.81-33.46), and a significant overall group-by-time interaction effect was observed for depression severity on the Hopkins Symptom Checklist, with greater reductions in severity over time for patients in the telemedicine-based group. Improvements in outcomes appeared to be attributable to higher fidelity to the collaborative care evidence base in the telemedicine-based group. **CONCLUSIONS:** Contracting with an off-site telemedicine-based collaborative care team can yield better outcomes than implementing practice-based collaborative care with locally available staff.

Fountoulakis, K. N., D. Kontis, et al. (2013). **"A systematic review of the evidence on the treatment of rapid cycling bipolar disorder."** *Bipolar Disorders* 15(2): 115-137. <http://dx.doi.org/10.1111/bdi.12045>

**Objective:** Rapid cycling is associated with longer illness duration and greater illness severity in bipolar disorder. The aim of the present study was to review the existing published randomized trials investigating the effect of treatment on patients with rapid cycling bipolar disorder. **Methods:** A MEDLINE search was conducted using combinations of the following key words: bipolar and rapid or rapid-cycling or prophylactic efficacy and randomized. The search was conducted through July 16, 2011, and no conference proceedings were included. **Results:** The search returned 206 papers and ultimately 25 papers were selected for review. Only six randomized, controlled trials specifically designed to study a rapid cycling population were found. Most data were derived from post hoc analyses of trials that had included rapid cyclers. The literature suggested that: (i) rapid cycling patients perform worse in the follow-up period; (ii) lithium and anticonvulsants have comparable efficacies; (iii) there is inconclusive evidence on the comparative acute or prophylactic efficacy of the combination of anticonvulsants versus anticonvulsant monotherapy; (iv) aripiprazole, olanzapine, and quetiapine are effective against acute bipolar episodes; (v) olanzapine and quetiapine appear to be equally effective to anticonvulsants during acute treatment; (vi) aripiprazole and olanzapine appear promising for the maintenance of response of rapid cyclers; and (vii) there might be an association between antidepressant use and the presence of rapid cycling. **Conclusion:** The literature examining the pharmacological treatment of rapid cycling is still sparse and therefore there is no clear consensus with respect to its optimal pharmacological management. Clinical trials specifically studying rapid cycling are needed in order to unravel the appropriate management of rapid cycling bipolar disorder.

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.

Ishak, W. W., K. Balayan, et al. (2013). **"A descriptive analysis of quality of life using patient-reported measures in major depressive disorder in a naturalistic outpatient setting."** *Quality of Life Research* 22(3): 585-596. <http://dx.doi.org/10.1007/s11136-012-0187-6>

**PURPOSE:** Major depressive disorder (MDD) negatively impacts different aspects of an individual's life leading to grave impairments in quality of life (QOL). We performed a detailed analysis of the interaction between depressive symptom severity, functioning, and QOL in outpatients with MDD in order to better understand QOL impairments in MDD. **METHODS:** This cross-sectional study was conducted with 319 consecutive outpatients seeking treatment for DSM-IV-diagnosed MDD at an urban hospital-based outpatient clinic from 2005 to 2008 as part of the Cedars-Sinai Psychiatric Treatment Outcome Registry, a prospective cohort study of clinical, functioning, and patient-reported QOL outcomes in psychiatric disorders using a measurement-based care model. This model utilizes the following measures: (a) Depressive symptom severity: Quick Inventory of Depressive Symptomatology-Self Report (QIDS-SR); (b) Functioning measures: Global Assessment of Functioning (GAF), Sheehan Disability Scale (SDS), Work and Social Adjustment Scale, and the Endicott Work Productivity Scale; and (c) Quality of

Life measure: Quality of Life, Enjoyment, and Satisfaction Questionnaire-Short Form (Q-LES-Q). RESULTS: QOL is significantly impaired in MDD, with a mean Q-LES-Q score for this study population of 39.8 % (SD = 16.9), whereas the community norm average is 78.3 %. Regression modeling suggested that depressive symptom severity, functioning/disability, and age all significantly contributed to QOL. QIDS-SR (measuring depressive symptom severity), GAF, and SDS (measuring functioning/disability) scores accounted for 48.1, 17.4, and 13.3 % (semi-partial correlation values) of the variance in Q-LES-Q, respectively. CONCLUSIONS: Our results show that impairment of QOL increases in a monotonic fashion with depressive symptom severity; however, depression symptom severity only accounted for 48.1 % of the QOL variance in our patient population. Furthermore, QOL is uniquely associated with measures of Functioning. We believe these results demonstrate the need to utilize not only Symptom Severity scales, but also Functioning and Quality of Life measures in MDD assessment, treatment, and research.

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](http://www.effectivehealthcare.ahrq.gov/reports/final.cfm)

(Full 760 page report freely downloadable) Objectives. To assess efficacy, comparative effectiveness, and harms of psychological 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-point 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 insufficient 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.

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.

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.

Mortensen, J. K., H. Larsson, et al. (2013). **"Post stroke use of selective serotonin reuptake inhibitors and clinical outcome among patients with ischemic stroke: A nationwide propensity score-matched follow-up study."** Stroke 44(2): 420-426. <http://www.ncbi.nlm.nih.gov/pubmed/23306326>

BACKGROUND AND PURPOSE: Selective serotonin reuptake inhibitors (SSRIs) are widely prescribed after stroke. We aimed to investigate whether potential antiplatelet or vasospastic effects have important clinical implications. METHODS: Using data from Danish medical registries, we did a nationwide follow-up study among ischemic stroke patients between 2003 and 2009. We identified 5833 SSRI users, and propensity score matched these patients with nonusers in a 1:1 ratio, followed by Cox regression analysis to compute hazard ratios (HRs) of acute myocardial infarction, recurrent stroke, major bleeding, and death.



RESULTS: Median follow-up time (from 30 days after discharge to death/end of follow-up) was 1159 days. In total, 2.9% had myocardial infarction, 8.1% recurrent ischemic stroke, 20.2% major bleeding, 1.4% intracranial bleeding, and 34.4% died during follow-up. SSRI users had a lower risk of the combined outcome of myocardial infarction or recurrent ischemic stroke (adjusted HR, 0.77; confidence interval [CI], 0.62-0.96). However, the SSRI users also experienced a higher risk of overall major bleeding (adjusted HR, 1.33; CI, 1.14-1.55) and a nonsignificantly higher risk of intracranial bleedings (adjusted HR, 1.14; CI, 0.62-2.12). Mortality increased in SSRI users (adjusted HR, 1.13; CI, 1.00-1.28) and death caused by bleeding increased (adjusted HR, 1.89; CI, 0.97-3.66) as compared with death by other causes (adjusted HR, 1.11; CI, 0.98-1.26). CONCLUSIONS: SSRI use after ischemic stroke was associated with a lower risk of new cardiovascular events and also with an increased bleeding risk. There was an increased mortality among SSRI users, which may be related to the increased bleeding risk.

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. Rockville (MD). <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.

Raes, F., J. Griffith, et al. (2013). **"School-based prevention and reduction of depression in adolescents: A cluster-randomized controlled trial of a mindfulness 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.

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.

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.

So, M., S. Yamaguchi, et al. (2013). **"Is computerised cbt really helpful for adult depression? - a meta-analytic re-evaluation of ccbt for adult depression in terms of clinical implementation and methodological validity."** *BMC Psychiatry* 13(1): 113. <http://www.biomedcentral.com/1471-244X/13/113>

(Free full text available) BACKGROUND: Depression is a major cause of disability worldwide, and computerised cognitive behavioural therapy (CCBT) is expected to be a more augmentative and efficient treatment. According to previous meta-analyses of CCBT, there is a need for a meta-analytic reevaluation of the short-term effectiveness of this therapy and for an evaluation of its long-term effects, functional improvement and dropout. METHODS: Five databases were used (MEDLINE, PsycINFO, EMBASE, CENTRAL and CiNii). We included all RCTs with proper concealment and blinding of outcome assessment for the clinical effectiveness of CCBT in adults (aged 18 and over) with depression. Using Cohen's method, the standard mean difference (SMD) for the overall pooled effects across the included studies was estimated with a random effect model. The main outcome measure and the relative risk of dropout were included in the meta-analysis. RESULTS: Fourteen trials met the inclusion criteria, and sixteen comparisons from these were used for the largest meta-analysis ever. All research used appropriate random sequence generation and Intention-to-Treat analyses (ITT), and employed self-reported measures as the primary outcome. For the sixteen comparisons (2807 participants) comparing CCBT and control conditions, the pooled SMD was 0.48 [95% IC 0.63 to 0.33], suggesting similar effect to the past reviews. Also, there was no significant clinical effect at long follow-up and no improvement of function found. Furthermore, a significantly higher drop-out rate was found for CCBT than for controls. When including studies without BDI as a rating scale and with only modern imputation as sensitivity analysis, the pooled SMD remained significant despite the reduction from a moderate to a small effect. Significant publication bias was found in a funnel plot and on two tests (Begg's  $p=0.09$ ; Egger's  $p=0.01$ ). Using a trim and fill analysis, the SMD was 0.32 [95% CI 0.49 to 0.16]. CONCLUSION: Despite a short-term reduction in depression at post-treatment, the effect at long follow-up and the function improvement were not significant, with significantly high drop-out. Considering the risk of bias, our meta-analysis implied that the clinical usefulness of current CCBT for adult depression may need to be re-considered downwards in terms of practical implementation and methodological validity.

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.