

# **17 action on depression abstracts, december/january '14**

(Barker, Kirkham et al. 2013; Canevello, Granillo et al. 2013; Gershon, Johnson et al. 2013; Guaiana, Gupta et al. 2013; Kingston, Scully et al. 2013; McCarthy 2013; Milner, Spittal et al. 2013; Nanri, Mizoue et al. 2013; Newby, Mackenzie et al. 2013; Oquendo, Ellis et al. 2013; Oren, Kozirowski et al. 2013; Persons, Robinson et al. 2013; Schauman, Aschan et al. 2013; Simon, Rutter et al. 2013; Stallard, Spears et al. 2013; Swardfager, Herrmann et al. 2013; Zelber-Sagi, Tokar et al. 2013)

Barker, E. D., N. Kirkham, et al. (2013). **"Prenatal maternal depression symptoms and nutrition, and child cognitive function."** *The British Journal of Psychiatry* 203(6): 417-421. <http://bjp.rcpsych.org/content/203/6/417.abstract>

Background Little is currently known about how maternal depression symptoms and unhealthy nutrition during pregnancy may developmentally interrelate to negatively affect child cognitive function. Aims To test whether prenatal maternal depression symptoms predict poor prenatal nutrition, and whether this in turn prospectively associates with reduced postnatal child cognitive function. Method In 6979 mother-offspring pairs participating in the Avon Longitudinal Study of Parents and Children (ALSPAC) in the UK, maternal depression symptoms were assessed five times between 18 weeks gestation and 33 months old. Maternal reports of the nutritional environment were assessed at 32 weeks gestation and 47 months old, and child cognitive function was assessed at age 8 years. Results During gestation, higher depressive symptoms were related to lower levels of healthy nutrition and higher levels of unhealthy nutrition, each of which in turn was prospectively associated with reduced cognitive function. These results were robust to postnatal depression symptoms and nutrition, as well as a range of potential prenatal and postnatal confounds (i.e. poverty, teenage mother, low maternal education, parity, birth complications, substance use, criminal lifestyle, partner cruelty towards mother). Conclusions Prenatal interventions aimed at the well-being of children of parents with depression should consider targeting the nutritional environment.

Canevello, A. M. Y., M. T. Granillo, et al. (2013). **"Predicting change in relationship insecurity: The roles of compassionate and self-image goals."** *Personal Relationships* 20(4): 587-618. <http://dx.doi.org/10.1111/per.12002>

It was hypothesized that self-image goals to construct, defend, and maintain desired images of the self enhance relationship insecurity, whereas compassionate goals to support others diminish relationship insecurity. Study 1 followed 115 new college roommates for 3 weeks; Study 2 followed 230 new college roommates across a semester. Both studies assessed self-image and compassionate goals for and anxiety and avoidance in the roommate relationship. Self-image goals predicted increased relationship anxiety and avoidance across 3 weeks (Study 1) and within weeks, from week to week, and across 3 months (Study 2). Compassionate goals consistently predicted decreased relationship anxiety and avoidance across studies and analyses. These results suggest that through their interpersonal goals, people contribute directly to their own relationship insecurity.

Gershon, A., S. L. Johnson, et al. (2013). **"Chronic stressors and trauma: Prospective influences on the course of bipolar disorder."** *Psychological Medicine* 43(12): 2583-2592. <http://dx.doi.org/10.1017/S0033291713000147>

Background Exposure to life stress is known to adversely impact the course of bipolar disorder. Few studies have disentangled the effects of multiple types of stressors on the longitudinal course of bipolar I disorder. This study examines whether severity of chronic stressors and exposure to trauma are prospectively associated with course of illness among bipolar patients. Method One hundred and thirty-one participants diagnosed with bipolar I disorder were recruited through treatment centers, support groups and community advertisements. Severity of chronic stressors and exposure to trauma were assessed at study entry with in-person interviews using the Bedford College Life Event and Difficulty Schedule (LEDS). Course of illness was assessed by monthly interviews conducted over the course of 24 months (over 3000 assessments). Results Trauma exposure was related to more severe interpersonal chronic stressors. Multiple regression models provided evidence that severity of overall chronic stressors predicted depressive but not manic symptoms, accounting for 7.5% of explained variance. Conclusions Overall chronic stressors seem to be an important determinant of depressive symptoms within bipolar disorder, highlighting the importance of studying multiple forms of life stress.

Guaiana, G., S. Gupta, et al. (2013). **"Agomelatine versus other antidepressive agents for major depression."** *Cochrane Database Syst Rev* 12: CD008851. <http://www.ncbi.nlm.nih.gov/pubmed/24343836>

BACKGROUND: Major depressive disorder (MDD), or depression, is a syndrome characterised by a number of behavioural, cognitive and emotional features. It is most commonly associated with a sad or depressed mood, a reduced capacity to feel pleasure, feelings of hopelessness, loss of energy, altered sleep patterns, weight fluctuations, difficulty in concentrating and suicidal ideation. There is a need for more effective and better tolerated antidepressants to combat this condition. Agomelatine was recently added to the list of available antidepressant drugs; it is a novel antidepressant that works on melatonergic (MT1 and MT2), 5-HT<sub>2B</sub> and 5-HT<sub>2C</sub> receptors. Because the mechanism of action is claimed to be novel, it may provide a useful, alternative pharmacological strategy to existing antidepressant drugs. OBJECTIVES: The objective of this review was 1) to determine the efficacy of agomelatine in alleviating acute symptoms of major depressive disorder in comparison with other antidepressants, 2) to review the acceptability of agomelatine in comparison with other antidepressant drugs, and, 3) to investigate the adverse effects of agomelatine, including the general prevalence of side effects in adults. SEARCH METHODS: We searched the Cochrane Collaboration's Depression, Anxiety and Neurosis Review Group's Specialised Register (CCDANCTR) to 31 July 2013. The CCDANCTR includes relevant randomised controlled trials from the following bibliographic databases: CENTRAL (the Cochrane Central Register of Controlled Trials) (all years), EMBASE (1974 onwards), MEDLINE (1950 onwards) and PsycINFO (1967 onwards). We checked reference lists of relevant studies together with reviews and regulatory agency reports. No restrictions on date, language or publication status were applied to the search. Servier Laboratories (developers of agomelatine) and other experts in the field were contacted for supplemental data. SELECTION CRITERIA: Randomised controlled trials allocating adult participants with major depression to agomelatine versus any other antidepressive agent. DATA COLLECTION AND ANALYSIS: Two review authors independently extracted data and a double-entry procedure was employed. Information extracted included study characteristics, participant characteristics, intervention details and outcome measures in terms of efficacy, acceptability and tolerability. MAIN RESULTS: A total of 13 studies (4495 participants) were included in this review. Agomelatine was compared to selective serotonin reuptake inhibitors (SSRIs), namely paroxetine, fluoxetine, sertraline, escitalopram, and to the serotonin-norepinephrine reuptake inhibitor (SNRI), venlafaxine. Participants were followed up for six to 12 weeks. Agomelatine did not show any advantage or disadvantage over the other antidepressants for our primary outcome, response to treatment (risk ratio (RR) 1.01, 95% confidence interval (CI) 0.95 to 1.08, P value 0.75 compared to SSRIs, and RR 1.06; 95% CI 0.98 to 1.16, P value 0.16 compared to venlafaxine). Also,

agomelatine showed no advantage or disadvantage over other antidepressants for remission (RR 0.83; 95% CI 0.68 to 1.01, P value 0.07 compared to SSRIs, and RR 1.08; 95% CI 0.94 to 1.24, P value 0.73 compared to venlafaxine). Overall, agomelatine appeared to be better tolerated than venlafaxine in terms of lower rates of drop outs (RR 0.40; 95% CI 0.24 to 0.67, P value 0.0005), and showed the same level of tolerability as SSRIs (RR 0.95; 95% CI 0.83 to 1.09, P value 0.44). Agomelatine induced a lower rate of dizziness than venlafaxine (RR 0.19, 95% CI 0.06 to 0.64, P value 0.007). With regard to the quality of the body of evidence, there was a moderate risk of bias for all outcomes, due to the number of included unpublished studies. There was some heterogeneity, particularly between published and unpublished studies. The included studies were conducted in inpatient and outpatient settings, thus limiting the generalisability of the results to primary care settings. With regard to precision, the efficacy outcomes were precise, but the tolerability outcomes were mostly imprecise. Publication bias was variable and depended on the outcome of the trial. Our review included unpublished studies, and we think that this reduced the impact of publication bias. The overall methodological quality of the studies was not very good. Almost all of the studies were sponsored by the pharmaceutical company that manufactures agomelatine (Servier), and some of these were unpublished. Attempts to contact the pharmaceutical company Servier for additional information on all unpublished studies were unsuccessful. **AUTHORS' CONCLUSIONS:** Agomelatine did not seem to provide a significant advantage in efficacy over other antidepressive agents for the acute-phase treatment of major depression. Agomelatine was better tolerated than paroxetine and venlafaxine in terms of overall side effects, and fewer participants treated with agomelatine dropped out of the trials due to side effects compared to sertraline and venlafaxine, but data were limited because the number of included studies was small. We found evidence that compared agomelatine with only a small number of other active antidepressive agents, and there were only a few trials for each comparison, which limits the generalisability of the results. Moreover, the overall methodological quality of the studies was low, and, therefore, no firm conclusions can be drawn concerning the efficacy and tolerability of agomelatine.

Kingston, T., P. J. Scully, et al. (2013). **"Diagnostic trajectory, interplay and convergence/divergence across all 12 dsm-iv psychotic diagnoses: 6-year follow-up of the cavan-monaghan first episode psychosis study (camfeps)."** *Psychological Medicine* 43(12): 2523-2533. <http://dx.doi.org/10.1017/S003329171300041X>

**Background** The boundaries of psychotic illness and the extent to which operational diagnostic categories are distinct in the long term remain poorly understood. Clarification of these issues requires prospective evaluation of diagnostic trajectory, interplay and convergence/divergence across psychotic illness, without a priori diagnostic or other restrictions. **Method** The Cavan-Monaghan First Episode Psychosis Study (CAMFEPS), conducted using methods to attain the closest approximation to epidemiological completeness, incepted all 12 DSM-IV psychotic diagnoses. In this study we applied methodologies to achieve diagnostic reassessments on follow-up, at a mean of 6.4 years after first presentation, for 196 (97%) of the first 202 cases, with quantification of prospective and retrospective consistency. **Results** Over 6 years, the 12 initial psychotic diagnoses were characterized by numerous transitions but only limited convergence towards a smaller number of more stable diagnostic nodes. In particular, for initial brief psychotic disorder (BrP), in 85% of cases this was the harbinger of long-term evolution to serious psychotic illness of diagnostic diversity; for initial major depressive disorder with psychotic features (MDDP), in 18% of cases this was associated with mortality of diverse causality; and for initial psychotic disorder not otherwise specified (PNOS), 31% of cases continued to defy DSM-IV criteria. **Conclusions** CAMFEPS methodology revealed, on an individual case basis, a diversity of stabilities in, and transitions between, all 12 DSM-IV psychotic diagnoses over 6 years; thus, psychotic illness showed longitudinal disrespect to current nosology and may be better accommodated by a dimensional model. In particular, a first episode of BrP or MDDP may benefit from more vigorous, sustained interventions.

McCarthy, M. (2013). **"Antidepressant use has doubled in rich nations in past 10 years."** *BMJ* 347. <http://www.bmj.com/content/347/bmj.f7261>

Consumption of antidepressants has increased markedly in the world's richest nations over the past decade, show new data. The figures, collected from 24 member nations of the Organisation of Economic Co-operation and Development and included in the OECD's annual Health at a Glance report, show that Iceland had the highest antidepressant consumption.1 Its defined daily dose of antidepressants was 106 for every 1000 people a day in 2011, nearly twice the average of 56 for the countries included in the study and up from 70.5 in 2000. The defined daily dose is a statistical measure that represents the average daily maintenance dosage for the main indication of a drug or drug category. It is used to aggregate data on different doses, strengths, and formulations to enable comparison of consumption across different settings. Antidepressant use almost doubled in the second ranked country, Australia, its defined daily dose rising from 45 in 2000 to 89 in 2011. After Australia came Canada (86), Denmark (85), and Sweden (79). The United Kingdom's defined daily dose was 71 in 2011, up from 37 in 2000. The study did not include figures for the United States, but the US National Center on Health Statistics said that 11% of Americans aged 12 years or over take antidepressants. Part of the rise seen across countries could be explained by an increase in the intensity and duration of treatments,3 the report said. "In England, for example, the increase in antidepressant consumption has been associated with a longer duration of drug treatment," it said. Another factor behind the rise is the growing number of indications for which these drugs were used, including milder forms of depression, anxiety, and social phobias, the report added. "These extensions have raised concerns about appropriateness."

Milner, A., M. J. Spittal, et al. (2013). **"Suicide by occupation: Systematic review and meta-analysis."** *The British Journal of Psychiatry* 203(6): 409-416. <http://bjp.rcpsych.org/content/203/6/409.abstract>

**Background** Previous research has shown that those employed in certain occupations, such as doctors and farmers, have an elevated risk of suicide, yet little research has sought to synthesise these findings across working-age populations. **Aims** To summarise published research in this area through systematic review and meta-analysis. **Method** Random effects meta-analyses were used to calculate a pooled risk of suicide across occupational skill-level groups. **Results** Thirty-four studies were included in the meta-analysis. Elementary professions (e.g. labourers and cleaners) were at elevated risk compared with the working-age population (rate ratio (RR) = 1.84, 95% CI 1.46-2.33), followed by machine operators and deck crew (RR = 1.78, 95% CI 1.22-2.60) and agricultural workers (RR = 1.64, 95% CI 1.19-2.28). Results suggested a stepwise gradient in risk, with the lowest skilled occupations being at greater risk of suicide than the highest skill-level group. **Conclusions** This is the first comprehensive meta-analytical review of suicide and occupation. There is a need for future studies to investigate explanations for the observed skill-level differences, particularly in people employed in lower skill-level groups.

Nanri, A., T. Mizoue, et al. (2013). **"Dietary patterns and suicide in japanese adults: The japan public health center-based prospective study."** *The British Journal of Psychiatry* 203(6): 422-427. <http://bjp.rcpsych.org/content/203/6/422.abstract>

**Background** Although dietary patterns have been linked to depression, a frequently observed precondition for suicide, no study has yet examined the association between dietary patterns and suicide risk. **Aims** To prospectively investigate the association between dietary patterns and death from suicide. **Method** Participants were 40 752 men and 48 285 women who took part in the second survey of the Japan Public Health Center-based Prospective Study (1995-1998). Dietary patterns were derived from principal component analysis of the consumption of 134 food and beverage items ascertained by a food frequency

questionnaire. Hazard ratios of suicide from the fourth year of follow-up to December 2005 were calculated. Results Among both men and women, a 'prudent' dietary pattern characterised by a high intake of vegetables, fruits, potatoes, soy products, mushrooms, seaweed and fish was associated with a decreased risk of suicide. The multivariable-adjusted hazard ratio of suicide for the highest v. lowest quartiles of the dietary pattern score was 0.46 (95% CI 0.28-0.75) (P for trend, 0.005). Other dietary patterns (Westernised and traditional Japanese) were not associated with suicide risk. Conclusions Our findings suggest that a prudent dietary pattern may be associated with a decreased risk of death from suicide.

Newby, J. M., A. Mackenzie, et al. (2013). **"Internet cognitive behavioural therapy for mixed anxiety and depression: A randomized controlled trial and evidence of effectiveness in primary care."** *Psychological Medicine* 43(12): 2635-2648. <http://dx.doi.org/10.1017/S0033291713000111>

Background Major depressive disorder (MDD) and generalized anxiety disorder (GAD) have the highest co-morbidity rates within the internalizing disorders cluster, yet no Internet-based cognitive behavioural therapy (iCBT) programme exists for their combined treatment. Method We designed a six-lesson therapist-assisted iCBT programme for mixed anxiety and depression. Study 1 was a randomized controlled trial (RCT) comparing the iCBT programme (n = 46) versus wait-list control (WLC; n = 53) for patients diagnosed by structured clinical interview with MDD, GAD or co-morbid GAD/MDD. Primary outcome measures were the Patient Health Questionnaire nine-item scale (depression), Generalized Anxiety Disorder seven-item scale (generalized anxiety), Kessler 10-item Psychological Distress scale (distress) and 12-item World Health Organization Disability Assessment Schedule II (disability). The iCBT group was followed up at 3 months post-treatment. In study 2, we investigated the adherence to, and efficacy of the same programme in a primary care setting, where patients (n = 136) completed the programme under the supervision of primary care clinicians. Results The RCT showed that the iCBT programme was more effective than WLC, with large within- and between-groups effect sizes found (>0.8). Adherence was also high (89%), and gains were maintained at 3-month follow-up. In study 2 in primary care, adherence to the iCBT programme was low (41%), yet effect sizes were large (>0.8). Of the non-completers, 30% experienced benefit. Conclusions Together, the results show that iCBT is effective and adherence is high in research settings, but there is a problem of adherence when translated into the 'real world'. Future efforts need to be placed on developing improved adherence to iCBT in primary care settings.

Oquendo, M. A., S. P. Ellis, et al. (2013). **"Familial transmission of parental mood disorders: Unipolar and bipolar disorders in offspring."** *Bipolar Disorders* 15(7): 764-773. <http://dx.doi.org/10.1111/bdi.12107>

Objectives Offspring of depressed parents are at increased risk for psychiatric disorders. Although bipolar disorder (BD) and major depressive disorder (MDD) are both found in the same families, it is not clear whether transmission to offspring of BD or MDD tends to occur from parents with the same mood disorder subtype. Our primary hypothesis was that the offspring of parents with BD would be at increased risk for BD and other comorbid disorders common to BD, such as anxiety and substance use, relative to the offspring of parents with MDD. The offspring of parents with BD versus those with MDD were also hypothesized to be at greater risk for externalizing disorders (i.e., conduct disorder, attention-deficit hyperactivity disorder, or antisocial personality disorder). Methods Parents (n = 320) with mood disorders and their offspring (n = 679) were studied. Adult offspring were administered the Structured Clinical Interview for DSM-IV Axis I Disorders to establish the presence of psychopathology. Offspring aged 10–18 years were assessed using the School Aged Schedule for Affective Disorders and Schizophrenia, Present and Lifetime version, and parents of children under the age of ten completed the Child Behavioral Checklist. Data were examined using Cox proportional hazard regression. Results There was no difference in hazard of mood disorders in the offspring of parents with BD as compared to the offspring of parents with MDD. However, a number of other parent and offspring characteristics increased the risk of mood, anxiety, externalizing, and substance use disorders in the offspring, including self-reported childhood abuse in the parent or offspring, offspring impulsive aggression, and the age at onset of parental mood disorder. Conclusions Mood disorders are highly familial, a finding that appears independent of whether the parent's condition is unipolar or bipolar, suggesting considerable overlap in the heritability of MDD and BD. Although parental characteristics had a limited influence on the risk of offspring psychopathology, reported childhood adversity, be it in the parent or child, is a harbinger of negative outcomes. These risk factors extend previous findings, and are consistent with diathesis–stress conceptualizations.

Oren, D. A., M. Koziorowski, et al. (2013). **"Sad and the not-so-single photoreceptors."** *Am J Psychiatry* 170(12): 1403-1412. <http://ajp.psychiatryonline.org/article.aspx?articleid=1725888>

Research in the last century has demonstrated that light is a critical regulator of physiology in animals. More recent research has exposed the influence of light on human behavior, including the phenomenon of seasonal affective disorder (SAD). Repeated studies have shown that light treatment is effective in this disorder. The molecular mechanism by which the body absorbs the light that has energizing and antidepressant effects is still uncertain. This review presents evidence regarding the role of rod and cone photoreceptors, as well as the role of recently discovered nonvisual neuronal melanopsin-containing photoreceptors. The authors discuss an evolutionary-based theoretical model of humoral phototransduction. This model postulates that tetrapyrrole pigments, including hemoglobin and bilirubin, are blood-borne photoreceptors, regulating neurotransmitters such as carbon monoxide when exposed to light in the eye. Recent studies in an animal model for seasonality provide data consistent with this model. Understanding the molecular mechanisms by which light affects physiology may guide the development of therapies for SAD and other pathologies of circadian and circannual regulation.

Persons, J. E., J. G. Robinson, et al. (2013). **"Omega-3 fatty acid biomarkers and subsequent depressive symptoms."** *Int J Geriatr Psychiatry*. <http://www.ncbi.nlm.nih.gov/pubmed/24338726>

OBJECTIVE: We sought to determine the relationship between the omega-3 fatty acid content of red blood cell membranes (RBC), in particular docosahexaenoic acid (DHA) and eicosapentaenoic acid (EPA), and baseline and new-onset depressive symptoms in post-menopausal women. We secondarily sought to characterize the association between dietary omega-3 fatty acid intake and depressive symptomatology. METHODS: Study participants included 7086 members of the Women's Health Initiative Memory Study (aged 63-81 years) who had an assessment of RBC omega-3 fatty acid concentrations at the baseline screening visit. Depressive symptoms at baseline and follow-up were characterized using the Burnam eight-item scale for depressive disorders (Center for Epidemiologic Studies Depression Scale/Diagnostic Interview Schedule short form) and secondarily additionally inferred by antidepressant medication use. RESULTS: In multivariable-adjusted models, our primary exposure, RBC DHA + EPA, was not related to depressive symptoms by any measure at baseline or follow-up, nor were RBC total omega-3, DHA, or EPA (all p > 0.2). In contrast, dietary intake of omega-3 was positively associated with depressive symptoms at baseline (adjusted odds ratio 1.082, 95% confidence interval 1.004-1.166; p = 0.04 for dietary DHA + EPA and Burnam score >/=0.06), although this generally did not persist at follow-up. CONCLUSION: No relationship between RBC omega-3 levels and subsequent depressive symptoms was evident, and associations between dietary omega-3 and depressive symptoms were variable. Biomarkers of omega-3 status do not appear to be related to risk of new depression in post-menopausal women. Copyright (c) 2013 John Wiley & Sons, Ltd.

Schauman, O., L. E. Aschan, et al. (2013). **"Interventions to increase initial appointment attendance in mental health services: A systematic review."** *Psychiatr Serv* 64(12): 1249-1258.

<http://ps.psychiatryonline.org/article.aspx?articleid=1738337>

**OBJECTIVE** Although nonattendance at initial appointments in mental health services is a substantial problem, the phenomenon is poorly understood. This review synthesized findings of randomized controlled trials (RCTs) of interventions to increase initial appointment attendance and determined whether theories or models contributed to intervention design. **METHODS** Six electronic databases were systematically searched, and reference lists of identified studies were also examined. Studies included were RCTs (including "quasi-randomized" controlled trials) that compared standard practice with an intervention to increase attendance at initial appointments in a sample of adults who had a scheduled initial appointment in a mental health or substance abuse service setting. **RESULTS** Of 144 potentially relevant studies, 21 met inclusion criteria. These studies were reported in 20 different research papers. Of these, 16 studies (N=3,673 participants) were included in the analyses (five were excluded because they reported only nonattendance at the initial appointment). Separate analyses were conducted for each intervention type (opt-in systems, telephone reminders and prompts, orientation and reminder letters, accelerated intake, preappointment completion of psychodynamic questionnaires, and "other"). Narrative synthesis was used for analysis because the high level of heterogeneity between studies precluded a meta-analysis. The results were mixed for all types of intervention. Some isolated high-quality studies of opt-in systems, orientation and reminder letters, and more novel interventions demonstrated a beneficial effect. **CONCLUSIONS** The synthesized findings indicated that orientation and reminder letters may have a small beneficial effect. Consistent evidence for the efficacy of other types of common interventions is lacking. More novel interventions, such as asking clients to formulate plans to deal with obstacles to attendance and giving clients a choice of therapist style, showed some promise, but studies require replication.

Simon, G. E., C. M. Rutter, et al. (2013). **"Does response on the phq-9 depression questionnaire predict subsequent suicide attempt or suicide death?"** *Psychiatr Serv* 64(12): 1195-1202. <http://www.ncbi.nlm.nih.gov/pubmed/24036589>

**OBJECTIVE:** As use of standard depression questionnaires in clinical practice increases, clinicians will frequently encounter patients reporting thoughts of death or suicide. This study examined whether responses to the Patient Health Questionnaire for depression (PHQ-9) predict subsequent suicide attempt or suicide death. **METHODS:** Electronic records from a large integrated health system were used to link PHQ-9 responses from outpatient visits to subsequent suicide attempts and suicide deaths. A total of 84,418 outpatients age  $\geq 13$  completed 207,265 questionnaires between 2007 and 2011. Electronic medical records, insurance claims, and death certificate data documented 709 subsequent suicide attempts and 46 suicide deaths in this sample. **RESULTS:** Cumulative risk of suicide attempt over one year increased from .4% among outpatients reporting thoughts of death or self-harm "not at all" to 4% among those reporting thoughts of death or self-harm "nearly every day." After adjustment for age, sex, treatment history, and overall depression severity, responses to item 9 of the PHQ-9 remained a strong predictor of suicide attempt. Cumulative risk of suicide death over one year increased from .03% among those reporting thoughts of death or self-harm ideation "not at all" to .3% among those reporting such thoughts "nearly every day." Response to item 9 remained a moderate predictor of subsequent suicide death after the same factor adjustments. **CONCLUSIONS:** Response to item 9 of the PHQ-9 for depression identified outpatients at increased risk of suicide attempt or death. This excess risk emerged over several days and continued to grow for several months, indicating that suicidal ideation was an enduring vulnerability rather than a short-term crisis.

Stallard, P., M. Spears, et al. (2013). **"Self-harm in young adolescents (12-16 wyears): Onset and short-term continuation in a community sample."** *BMC Psychiatry* 13(1): 328. <http://www.biomedcentral.com/1471-244X/13/328>

(Available in free full text) **BACKGROUND:** To investigate the prevalence of self-harm in young adolescents and factors associated with onset and continuity over a one year period. **METHOD:** Prospective longitudinal study. Participants were young adolescents (n = 3964) aged 12-16 years attending 8 secondary schools in the Midlands and South West of England. **RESULTS:** Over a one year period 27% of young adolescents reported thoughts of self-harm and 15% reported at least one act of self-harm. Of those who self-harmed, less than one in five (18%) had sought help for psychological problems of anxiety or depression. Compared with boys, girls were at increased risk of developing thoughts (OR 1.61, 95% CI 1.26-2.06) and acts (OR 1.40, 95% CI 1.06-1.84) of self-harm, particularly amongst those girls in school year 9 (aged 13/14, thoughts adjusted Odds Ratio (aOR) 1.97, 95% CI 1.27-3.04; acts aOR 2.59, 95% CI 1.52-4.41). Of those reporting thoughts of self-harm at baseline, 60% also reported these thoughts at follow-up. Similarly 55% of those who reported an act of self-harm at baseline also reported that they had self-harmed at follow-up. Insecure peer relationships increased the likelihood that boys and girls would develop self-harming behaviours, as did being bullied for boys. Low mood was associated with the development of self-harming thoughts and behaviours for boys and girls, whilst a strong sense of school membership was associated with a reduced risk of developing thoughts of self-harm for boys and increased the likelihood of self-harming thoughts and behaviours ceasing for girls. **CONCLUSION:** Self harm in young adolescents is common with one in four reporting self-harming thoughts and one in six engaging in self-harming behaviour over a one year period. Self-harm is already established by 12/13 years of age and for over half of our sample, self-harming thoughts and behaviour persisted over the year. Secure peer and strong school relationships were associated with less self-harm. Few seek help for psychological problems, suggesting a need to increase awareness amongst all professionals who work with young adolescents about self-harm and associated risk factors.

Swardfager, W., N. Herrmann, et al. (2013). **"Zinc in depression: A meta-analysis."** *Biological Psychiatry* 74(12): 872-878. <http://linkinghub.elsevier.com/retrieve/pii/S0006322313004514?showall=true>

Zinc is an essential micronutrient with diverse biological roles in cell growth, apoptosis and metabolism, and in the regulation of endocrine, immune, and neuronal functions implicated in the pathophysiology of depression. This study sought to quantitatively summarize the clinical data comparing peripheral blood zinc concentrations between depressed and nondepressed subjects. PubMed, Cumulated Index to Nursing and Allied Health Literature, and PsycINFO were searched for original peer-reviewed studies (to June 2012) measuring zinc concentrations in serum or plasma from depressed subjects (identified by either screening or clinical criteria) and nondepressed control subjects. Mean ( $\pm$ SD) zinc concentrations were extracted, combined quantitatively in random-effects meta-analysis, and summarized as a weighted mean difference (WMD). Seventeen studies, measuring peripheral blood zinc concentrations in 1643 depressed and 804 control subjects, were included. Zinc concentrations were approximately  $-1.85 \mu\text{mol/L}$  lower in depressed subjects than control subjects (95% confidence interval: [CI]:  $-2.51$  to  $-1.19 \mu\text{mol/L}$ ,  $Z_{17} = 5.45$ ,  $p < .00001$ ). Heterogeneity was detected ( $\chi^2_{17} = 142.81$ ,  $p < .00001$ ,  $I^2 = 88\%$ ) and explored; in studies that quantified depressive symptoms, greater depression severity was associated with greater relative zinc deficiency ( $B = -1.503$ ,  $t_9 = -2.82$ ,  $p = .026$ ). Effect sizes were numerically larger in studies of inpatients (WMD  $-2.543$ , 95% CI:  $-3.522$  to  $-1.564$ ,  $Z_9 = 5.09$ ,  $p < .0001$ ) versus community samples (WMD  $-.943$ , 95% CI:  $-1.563$  to  $-.323$ ,  $Z_7 = 2.98$ ,  $p = .003$ ) and in studies of higher methodological quality (WMD  $-2.354$ , 95% CI:  $-2.901$  to  $-1.807$ ,  $Z_7 = 8.43$ ,  $p < .0001$ ). Depression is associated with a lower concentration of zinc in peripheral blood. The pathophysiological relationships between zinc status and depression, and the potential benefits of zinc supplementation in depressed patients, warrant further investigation.

Zelber-Sagi, S., S. Toker, et al. (2013). **"Elevated alanine aminotransferase independently predicts new onset of depression in employees undergoing health screening examinations."** *Psychological Medicine* 43(12): 2603-2613. <http://dx.doi.org/10.1017/S0033291713000500>

Background Non-alcoholic fatty liver disease (NAFLD) is the most common cause of elevated alanine aminotransferase (ALT). NAFLD is associated with insulin resistance and hepatic inflammation. Similarly, patients with depression exhibit insulin resistance and increased inflammatory markers. However, no study has shown a clear association between elevated ALT and the development of depression. The aim of the study was to test whether elevated ALT, a surrogate marker for NAFLD, predicts the development of depression. Method The present prospective cohort study investigated 12 180 employed adults referred for health examinations that included fasting blood tests and anthropometric measurements between 2003 and 2010. Exclusion criteria were: baseline minor/major depression, excessive alcohol consumption and other causes for ALT elevation. Depression was evaluated by the eight-item Patient Health Questionnaire (PHQ-8) score. Results The final cohort included 5984 subjects [69.4% men, aged 45.0 (s.d. = 10.24) years]. The incidence rate of minor and major depression was 3.8% and 1.4%, respectively. Elevated ALT was a significant independent predictor for the occurrence of minor [odds ratio (OR) 2.02, 95% confidence interval (CI) 1.40–2.92] and major (OR 3.132, 95% CI 1.81–5.40) depression after adjusting for age, gender, body mass index, education level, serum levels of lipids, glucose, smoking and physical activity. Adding subjective health and affective state parameters (sleep disturbances, self-rated health, anxiety and burnout) as potential mediators only slightly ameliorated the association. Persistently elevated ALT was associated with the greatest risk for minor or major depression as compared with elevation only at baseline or follow-up (p for trend < 0.001). Conclusions Elevated ALT was associated with developing depressive symptoms, thus suggesting that NAFLD may represent an independent modifiable risk factor for depression.