

## **PSYCHIATRIC SUMMARY XIV**

**Summer 2015**

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This issue marks the fourteenth installment consolidating recent clinical updates, mental health policy news, popular press news patients may be reading, and changes in the landscape of psychiatry in Wisconsin. Download the full issue.

### OF GENERAL INTEREST

#### **The Marketing of Serotonin**

In an editorial appearing in the British Medical Journal ([LINK](#)) David Healy writes on the circuitous history of the SSRI class leading up to their use in treatment of depression and anxiety.

#### **HHS Backtrack on Meaningful Use**

Calling layperson attention to the Electronic Health Record (EHR) problem, USA Today (O'Donnell and Ungar 5/27/2015 [LINK](#)) explored the flawed meaningful use program which many providers have come to call "meaningless use" and how the government is backing down on some of its requirements allowing organizations more time to meet goals.

#### **MOC Part IV Feedback Module Now Optional for Most**

According to the ABPN Quarterly Update, July 7, 2015 ~ Volume 1 ~ Number 2

"The ABPN Board of Directors has made the Feedback Module an OPTIONAL component of Part IV of its MOC Program. As of January 1, 2016, the Feedback Module will become a highly recommended yet optional component for all ABPN diplomates enrolled in Maintenance of Certification.

Only those diplomates in the 2013-2015 C-MOC block must complete a Feedback Module. The Part IV Clinical Module component will remain a requirement for all, with additional approved activities now available."

### CLINICAL PSYCHIATRY IN THE NEWS, IN BRIEF

#### **Varenicline and Mental Health**

In a meta-analysis of 39 randomized controlled trials (British Medical Journal, Thomas et al. [LINK](#)) the authors "found no evidence of an increased risk of suicide or attempted suicide, suicidal ideation, depression, or death with varenicline. These findings provide some reassurance for users and prescribers regarding the neuropsychiatric safety of varenicline. There was evidence that varenicline was associated with a higher risk of sleep problems such as insomnia and abnormal dreams."

#### **Sleep Disordered Breathing and Cognitive Decline**

Published in Neurology ([LINK](#)), Osorio et al. found that sleep disordered breathing is associated with earlier onset of cognitive decline and that treatment with CPAP delayed this progression.

#### **Antipsychotics and Risk in Elderly**

Maust et al (JAMA [LINK](#)) published a retrospective case-control study of over 90,000 patients aged 65 or older with diagnosis of dementia. Absolute change in mortality risk and Number Needed to Harm (NNH) were calculated over 180 days of follow-up in medication users versus non-users. "Compared with respective matched nonusers, individuals receiving haloperidol had an increased mortality risk of 3.8% (95% CI, 1.0%-6.6%; P < .01) with an NNH of 26 (95% CI, 15-99); followed by risperidone, 3.7% (95% CI, 2.2%-5.3%; P < .01) with an NNH of 27 (95% CI, 19-46); olanzapine, 2.5% (95% CI, 0.3%-4.7%; P = .02) with an NNH of 40 (95% CI, 21-312); and quetiapine, 2.0% (95% CI, 0.7%-3.3%; P < .01) with an NNH of 50 (95% CI, 30-150). Compared with antidepressant users, mortality risk ranged from 12.3% (95% CI, 8.6%-16.0%; P < .01) with an NNH of 8 (95% CI, 6-12) for haloperidol users to 3.2% (95% CI, 1.6%-4.9%; P < .01) with an NNH of 31 (95% CI, 21-62) for quetiapine users. As a group, the atypical antipsychotics (olanzapine, quetiapine, and risperidone) showed a dose-response increase in mortality risk, with 3.5% greater mortality (95% CI, 0.5%-6.5%; P = .02) in the high-dose subgroup relative to the low-dose group. When compared directly with quetiapine, dose-adjusted mortality risk was increased with both risperidone (1.7%; 95% CI, 0.6%-2.8%; P = .003) and olanzapine (1.5%; 95% CI, 0.02%-3.0%; P = .047)."

### **Encenicline Pro-Cognitive Effects in Schizophrenia**

Reporting at Medscape Psychiatry, (4/10/2015 [LINK](#)) Nancy Melville writes: "Encenicline (Forum Pharmaceuticals), a novel  $\alpha$ -7 nicotinic acetylcholine receptor partial agonist, shows improvement of cognitive impairment in schizophrenia in a phase 2 randomized, controlled trial, potentially ushering in a long-anticipated treatment for an aspect of the disease not addressed by antipsychotics."

### **FDA Approves Generic Aripiprazole**

According to Medscape (Caroline Cassels 4/28/2015 [LINK](#)) the FDA has approved generic aripiprazole for the treatment of schizophrenia and bipolar disorder. "Alembic Pharmaceuticals Ltd, Hetero Labs Ltd, Teva Pharmaceuticals, and Torrent Pharmaceuticals Ltd have received FDA approval to market generic versions of the drug in multiple strengths and dosage forms."

### **Bullying Worse Than Abuse**

In a cohort study of over 5000 children appearing in The Lancet Psychiatry, Lereya et al ([LINK](#)) found that "Being bullied by peers in childhood had generally worse long-term adverse effects on young adults' mental health. These effects were not explained by poly-victimisation." Specific results included: "Children who were bullied by peers only were more likely than children who were maltreated only to have mental health problems in both cohorts (ALSPAC OR 1.6, 95% CI 1.1-2.2; p=0.005; GSMS 3.8, 1.8-7.9, p<0.0001), with differences in anxiety (GSMS OR 4.9; 95% CI 2.0-12.0), depression (ALSPAC 1.7, 1.1-2.7), and self-harm (ALSPAC 1.7, 1.1-2.6) between the two cohorts."

### **Depression → Parkinson Disease**

According to Gustafsson et al. (Neurology [LINK](#)) through a nationwide study of 140,688 cases of depression matched 1:3 in a nested case-control design: "The multivariable adjusted odds ratio (OR) for PD was 3.2 (95% confidence interval [CI], 2.5-4.1) within the first year of depression, decreasing to 1.5 (95% CI, 1.1-2.0) after 15 to 25 years. Among participants with depression, recurrent hospitalization was an independent risk factor for PD (OR, 1.4; 95% CI, 1.1-1.9 for  $\geq 5$  vs 1 hospitalization). In family analyses, siblings' depression was not significantly associated with PD risk in index persons (OR, 1.1; 95% CI, 0.9-1.4)."

### **Depression → Stroke?**

Published in The Journal of the American Heart Association (Patton et al, 2015, [LINK](#)), researchers followed over 16,000 participants in the Health and Retirement Study from 1998 to 2010 monitoring stroke and depressive symptoms. “Stroke hazard was elevated among participants with stable high (adjusted hazard ratio 2.14, 95% CI 1.69 to 2.71) or remitted (adjusted hazard ratio 1.66, 95% CI 1.22 to 2.26) depressive symptoms compared with participants with stable low/no depressive symptoms. Stable high depressive symptom predicted stroke among all subgroups. Remitted depressive symptoms predicted increased stroke hazard among women (adjusted hazard ratio 1.86, 95% CI 1.30 to 2.66) and non-Hispanic white participants (adjusted hazard ratio 1.66, 95% CI 1.18 to 2.33) and was marginally associated among Hispanics (adjusted hazard ratio 2.36, 95% CI 0.98 to 5.67).”

### **Stroke → Suicide?**

Ericksson et al, publishing in Neurology ([LINK](#)) reported on psychosocial factors conferring greater risk for suicide attempt following cerebrovascular accident (CVA):

We observed 220,336 stroke patients with a total follow-up time of 860,713 person-years.

During follow-up, there were 1,217 suicide attempts, of which 260 were fatal. This was approximately double the rate of the general Swedish population. Patients with lower education or income (hazard ratio [HR] 1.37, 95% confidence interval [CI] 1.11–1.68) for primary vs university and patients living alone (HR 1.73, 95% CI 1.52–1.97) had an increased risk of attempted suicide, and patients born outside of Europe had a lower risk compared to patients of European origin. Male sex, young age, severe stroke, and poststroke depression were other factors associated with an increased risk of attempted suicide after stroke. The risk was highest during the first 2 years after stroke.

### **3 Month Injectable Approved**

According to Medscape (Robert Lowes, 5/19/2015 [LINK](#)): “The US Food and Drug Administration (FDA) has approved a quarterly injection form of paliperidone (Invega Trinza, Janssen Pharmaceuticals) for schizophrenia, the company announced today.”

### **Unexpected Increase in Suicide Rate of Black Children**

Published in JAMA Pediatrics (Bridge et al., [LINK](#)) “The stable overall suicide rate in school-aged children in the United States during 20 years of study obscured a significant increase in suicide incidence in black children and a significant decrease in suicide incidence among white children.”

### **Diabetes and Alzheimer’s**

Exploring the connection between high blood sugar and beta amyloid, Macauley et al (The Journal of Clinical Investigation, [LINK](#)) used a mouse model of Alzheimer’s Disease (AD) by monitoring “real-time changes in amyloid- $\beta$  (A $\beta$ ), glucose, and lactate within the [mouse] hippocampal interstitial fluid (ISF). In a murine model of AD, induction of acute hyperglycemia in young animals increased ISF A $\beta$  production and ISF lactate, which serves as a marker of neuronal activity. These effects were exacerbated in aged AD mice with marked A $\beta$  plaque pathology.”

### **Hospice and Depression**

Publishing in JAMA Internal Medicine, Ornstein et al (online ahead of print, [LINK](#)) studied over 1000 spouses of the deceased, finding little evidence that use of hospice at some time during the final year of life affected depressive symptoms in bereavement.

### **More Evidence Bullying → Depression**

Appearing in the BMJ, Bowes et al. ([LINK](#)) used the Avon birth cohort to review 6719 participants who reported on peer victimization at age 13. “Of the 683 participants who reported frequent victimisation at age 13 years, 101 (14.8%) were depressed according to ICD-10 criteria at 18 years; of the 1446 participants reporting some victimisation at age 13 years, 103 (7.1%) were depressed at age 18 years; and of the 1769 participants reporting no victimisation at age 13 years, 98 (5.5%) were depressed at age 18 years.”

### **Statins and Memory Loss**

In a case control study appearing in JAMA Internal Medicine ([LINK](#)) Strom et al compared memory deficits in patients on statins and other lipid lowering drugs (LLDs) concluding: “Both statin and nonstatin LLDs were strongly associated with acute memory loss in the first 30 days following exposure in users compared with nonusers but not when compared with each other. Thus, either all LLDs cause acute memory loss regardless of drug class or the association is the result of detection bias rather than a causal association.”

### **Prediction of Veteran Suicide**

Using predictive modeling and a large database, the NIMH and VA have developed a predictive model, similar to the way in which consumer data predicts shopping habits. The study by McCarthy et al. appeared in the American Journal of Public Health ([LINK](#)). According to the popular press report in the New York Times (Philips 6/5/2011, [LINK](#)) “Many of the risk factors, such as being hospitalized for a psychiatric condition or making a previous suicide attempt, may seem obvious, [but an author reported that they] found that these high-risk patients, who should have been flagged by doctors and other health care staff under traditional suicide prevention protocols now in place, were not.”

### **Synthetic Cannabinoid Poisoning up 229%**

According to the CDC Morbidity Mortality Weekly Report (June 12, 2015 / 64(22);618-619 [LINK](#)): “During the 2015 study period, poison centers reported 3,572 calls related to synthetic cannabinoid use, a 229% increase from the 1,085 calls during the same January–May period in 2014.”

### **Hyperactivity May Enhance Performance in ADHD**

Authors looked at motor activity during neuropsychological testing published online in Child Neuropsychology (Hartanto et al. [LINK](#)). Authors found that: “The ADHD group demonstrated more intense activity than the TD group during correct (but not error) trials. Within-group, children with ADHD generated higher intensity movements in their correct trials compared to their error trials, whereas the TD group did not demonstrate any within-group differences. These findings suggest that excessive motoric activity associated with clinically significant ADHD symptoms may reflect compensatory efforts to modulate attention and alertness.”

### **Analgesics Linked to Higher Homicide Rates**

Published in World Psychiatry and reported at MedScape ([LINK](#) and Davenport report [LINK](#)) “Jari Tiihonen, MD, PhD, professor, Department of Clinical Neuroscience, Karolinska Institutet, Stockholm, Sweden, and colleagues found that antidepressants increase the homicide risk by 31% and that benzodiazepines increase the risk by 45%. Further, the use of opiate and nonopiate analgesics was associated with a two- and threefold increased risk for homicide, respectively. Interestingly, antipsychotics were not associated with an increased homicide risk.”

### **Probiotics Treat Anxiety?**

According to a survey study published at Psychiatry Research (Hilimire et al., [LINK](#)) a survey of over 700 individuals evaluated fermented food consumption, neuroticism, and social anxiety. The authors found that “for those high in neuroticism, higher frequency of fermented food consumption was associated with fewer symptoms of social anxiety. Taken together with previous studies, the results suggest that fermented foods that contain probiotics may have a protective effect against social anxiety symptoms for those at higher genetic risk, as indexed by trait neuroticism.”

### **Mindfulness versus Maintenance Meds**

In a single-blind, parallel, group randomised controlled trial of 2188 adult patients with three or more previous major depressive episodes and on a therapeutic dose of maintenance antidepressants, Kuyken et al. (Lancet [LINK](#)) found “no evidence that MBCT-TS is superior to maintenance antidepressant treatment for the prevention of depressive relapse in individuals at risk for depressive relapse or recurrence. Both treatments were associated with enduring positive outcomes in terms of relapse or recurrence, residual depressive symptoms, and quality of life.”

### **Daytrana Patch Skin Changes**

Appearing in an FDA release (6/24/2015 [LINK](#)) “The U.S. Food and Drug Administration (FDA) is warning that permanent loss of skin color may occur with use of the Daytrana patch (methylphenidate transdermal system) for Attention Deficit Hyperactivity Disorder (ADHD). FDA added a new warning to the drug label to describe this skin condition, which is known as chemical leukoderma.”

### **Over-prescribed Antipsychotics in Adolescents**

Many news sources picked up on a report published in JAMA Psychiatry (Olfson et al, 7/1/2015, [LINK](#)) in which the authors concluded: “Antipsychotic use increased from 2006 to 2010 for adolescents and young adults but not for children aged 12 years or younger. Peak antipsychotic use in adolescence, especially among boys, and clinical diagnosis patterns are consistent with management of developmentally limited impulsive and aggressive behaviors rather than psychotic symptoms.”

### **Walking in Nature Reduces Rumination**

In an article in PNAS (Bratman et al., [LINK](#)) authors showed “in healthy participants that a brief nature experience, a 90-min walk in a natural setting, decreases both self-reported rumination and neural activity in the subgenual prefrontal cortex (sgPFC), whereas a 90-min walk in an urban setting has no such effects on self-reported rumination or neural activity. In other studies, the sgPFC has been associated with a self-focused behavioral withdrawal linked to rumination in both depressed and healthy individuals. This study reveals a pathway by which nature experience may improve mental well-

being and suggests that accessible natural areas within urban contexts may be a critical resource for mental health in our rapidly urbanizing world.”

### **Opposing Impacts of Serotonin and Dopamine on Self Harm and Altruism**

In a randomized double blind study of citalopram and levodopa published in Current Biology (Crockett et al., [LINK](#)) the authors reported that “Inhibition of central serotonin reuptake, which increases synaptic serotonin, strongly and selectively increased harm aversion for both self and others. By contrast, increasing central dopamine levels reduced the extent to which people placed others’ welfare before their own. The drugs also had dissociable effects on response times, and their effects on behavior are not explained by changes in motor impulsivity or subjective mood. The drugs’ effects on model parameters were somewhat stronger than their effects on behaviors in aggregate, highlighting the sensitivity of our model-based approach. Overall, our data provide evidence that serotonin and dopamine modulate moral preferences in distinct ways, with ramifications for understanding prosocial behavior and its disruption in psychiatric disorders.”

## MENTAL HEALTH IN THE POPULAR PRESS

### **Benefits of Coffee Reviewed**

The New York Times (5/11/2015, Aaron E. Carroll [LINK](#)) ran an article regarding all the myriad health benefits of from 3 to 5 cups of black coffee daily. As relayed in that day’s AMA Morning Rounds: “Dr. Carroll mentions studies and meta-analyses suggesting that “drinking moderate amounts of coffee is linked to lower rates of pretty much all cardiovascular disease.” In addition, coffee consumption is tied to “better laboratory values in those at risk for liver disease, “ as well as “improved responses to antiviral therapy in patients with hepatitis C and better outcomes in patients with nonalcoholic fatty liver disease.” What’s more, “regular coffee consumption was associated with a significantly reduced risk of developing type 2 diabetes.””

### **Race, Gender, Income and ADHD**

Time ran a story (Alice Park, 3/14/2015, [LINK](#)) on the recent Centers for Disease Control and Prevention report which showed:

- 9.5% of children ages four to 17 were diagnosed with ADHD. The diagnosis was more common among older children than in younger ones.
- Twice as many boys as girls were diagnosed, and more white children than any other race were told they had ADHD.
- Family income also seemed to contribute in some way; children on public insurance had the highest rates of ADHD at 11.7%, compared to those with private insurance (8.6%) and children without insurance (5.7%). More children from families with incomes less than 200% of the federal poverty line were diagnosed with the condition than those from families living at about that threshold.

### **Nightmares + Psychosis?**

Appearing in TIME magazine (Mandy Oakler, 5/20/2015, [LINK](#)), a report on research published in the British Journal of Psychiatry evaluating an age matched cohort of more than 4000 children followed

from birth to age 18 in which nightmares at age 12 were associated with increased psychotic experiences later in life.

### **Flakka (or alpha-PVP) kills 18 in Florida**

A synthetic drug which reportedly results in persecutory thoughts, hallucinosis and exaggerated strength has been blamed for 18 deaths in a single Florida county according to an article in the New York Times (Frances Robles 5/24/2015 [LINK](#)). It is a synthetic cathinone, mimicking the khat plant, and part of a wave of second generation bath salts.

### **ADHD Debate Reporting**

The Washington Post (Arlene Karidis, 6/1/2015, [LINK](#)) ran an ambitious story elucidating current debate over the frequency and even existence of ADHD, as well as the efficacy, or lack thereof, in treatment through stimulants.

### **Poor Sleep → Alzheimer's?**

CBS reported on the link between quality sleep and brain maintenance, purporting that poor sleep begets more beta-amyloid, which in turn worsens quality of sleep (Amy Kraft, 6/1/2015, [LINK](#)).

### **Military Female Suicide Rate 6x Civilian**

In an article at LA Times (6/8/2015, [LINK](#)) Alan Zarembo reports: "New government research shows that female military veterans commit suicide at nearly six times the rate of other women, a startling finding that experts say poses disturbing questions about the backgrounds and experiences of women who serve in the armed forces."

### **What is Dabbing?**

According to the AMA Morning Rounds: "The NBC News (6/16, Fox) website reports that "An increasingly fashionable way to use marijuana called 'dabbing' is dangerous in more ways than one, and pediatricians can help warn kids, two experts argued" in a letter published online in Pediatrics. Dabbing involves using butane hash oil to concentrate marijuana's active ingredient THC into a solid called a dab. NBC News adds, "Making it and inhaling it can cause serious burns, and the concentrated form of THC is dangerous, John Stogner of the University of North Carolina and Bryan Lee Miller of Georgia Southern University argue in" the letter."

### **Overdose Deaths Lead Injury Deaths**

Many news agencies publicized the report of the Trust for America's Health and the Robert Wood Johnson Foundation [LINK](#) which relayed that: "Drug overdoses are the leading cause of injury deaths in the United States, at nearly 44,000 per year. These deaths have more than doubled in the past 14 years, and half of them are related to prescription drugs (22,000 per year). Overdose deaths now exceed motor vehicle-related deaths in 36 states and Washington, D.C. And, in the past four years, drug overdose death rates have significantly increased in 26 states and Washington, D.C. and decreased in six."

### **Genetic Testing Woes in NY Times**

In a 6/24/2015 article, Reed Abelson and Julie Creswell suggest that poor billing oversight and aggressive recruitment have led to enthusiasm outpacing evidence in the field of private laboratory genetic testing ([LINK](#)).

## MENTAL HEALTH POLICY

### **10 x More Mentally Ill Incarcerated than in State Hospitals**

Appearing in the AMA Morning Rounds of 5/1/2015: “The [Washington Post](#) (4/30, Swanson) “Wonkblog” reported that “according to a report by the Treatment Advocacy Center,” US “prisons and jails housed an estimated 356,268 inmates with several mental illness in 2012,” a figure representing “more than 10 times the number of mentally ill patients in state psychiatric hospitals in the same year – about 35,000 people.” The report also found that “in 44 of the 50 states and the District of Columbia, the largest prison or jail held more people with serious mental illness than the largest state psychiatric hospital.””

### **New York Model for Mental Health Care**

As reported on 5/6/2015 in the AMA Morning Rounds: “The [AP](#) (5/6, Peltz) reports that under New York City Mayor Bill de Blasio’s (D) “plan to invest tens of millions of dollars in mental health,” some “80 schools would get mental health clinics, every police precinct would have a victims’ advocate and social workers would arrange psychological care for thousands of families in homeless shelters.” To begin with, the “de Blasio’s administration wants to add over \$54 million in mental health programs next fiscal year, rising above \$78 million in the following years.” The mayor’s proposal “comes as New York seeks to become a national model for cities to address mental health needs.”

[Capital New York](#) (5/6, Goldberg) reports that the announcement of the proposed mental health funding “was made Tuesday in the Empire State Building by first lady Chirlane McCray, who has pushed for the city to improve its mental health services.” According to the article, “McCray has traveled around the city discussing the pervasiveness of mental health problems, often using her own family’s struggles to highlight the issue.””

### **Marijuana Legalization is Not Linked to Increased Use by Adolescents**

According to a study of 1098270 adolescents published by The Lancet (Hasin et al., [LINK](#)) the authors concluded: “Our findings, consistent with previous evidence, suggest that passage of state medical marijuana laws does not increase adolescent use of marijuana. However, overall, adolescent use is higher in states that ever passed such a law than in other states. State-level risk factors other than medical marijuana laws could contribute to both marijuana use and the passage of medical marijuana laws, and such factors warrant investigation.”