



PENN PSYCHIATRY PERSPECTIVE



Perelman School of Medicine at the University of Pennsylvania | Department of Psychiatry

Welcome to the Penn Psychiatry eNewsletter!

It is our hope that the Penn Psychiatry Perspective eNewsletter will offer useful and interesting news to readers and highlight our many outstanding faculty, programs, and services in a succinct and timely manner. We welcome ideas and suggestions for stories or announcements. Please submit your recommendations to psychweb@mail.med.upenn.edu.

In this Issue

Ask the Expert.....1

C. Neill Epperson, MD answers questions about behavioral health issues at menopause.

Departmental Goings-On.....2

Welcome Class of 2016
Forensic Psychiatry
Fellowship Accreditation

News and Announcements....3

In the News..... 3
Awards and Honors.....6
Leadership Appointments.....7
Upcoming Events.....7
Announcements.....7

Ask the Expert

In this issue, C. Neill Epperson, MD answers some often-asked questions about behavioral health issues at menopause, including mood, cognitive, and libido changes.



Dr. Epperson is Associate Professor of Psychiatry and Obstetrics and Gynecology in the Department of Psychiatry at the Perelman School of Medicine at the University of Pennsylvania and Director of the Penn Center for Women's Behavioral Wellness. She is internationally renowned for her research in women's mental health, specifically with respect to the role of hormone-neurotransmitter interactions in the pathophysiology of premenstrual dysphoric disorder, perinatal depression, nicotine addiction, and menopause mood and cognitive changes. Dr. Epperson is the Co-Director (with Dr. Tracy Bale) of Penn's new research center focusing on sex differences in affective disorders across the female lifespan. This center will begin in September 2012 and is funded by the National Institute of Mental Health (NIMH) and the NIH Office of Research on Women's Health (ORWH). Dr. Epperson was one of 30 University of Pennsylvania physicians recognized as "2011-2012 Best Doctors in America," selected by a consensus of her peers. She has received numerous grants

from private foundations, pharmaceutical companies, and the National Institutes of Health, including the National Institute on Aging, NIMH, and the National Institute on Drug Abuse.

At what age should women start thinking about how menopause might affect them?

The average age of menopause in the United States is 51 years old. However, women are in the "transition" for many years before they have their final menstrual period (FMP). These women would be considered to be perimenopausal. Ovarian function begins to decline when women are in their late 30's, but they do not typically begin to notice a change in their menstrual cycle length (number of days from one period to the next) or experience skipping periods until they are in their mid- to late 40's. The definition of "postmenopause" is relatively arbitrary; specifically a woman is considered to be postmenopausal when she has not had a menstrual period for at least 12 months. There is some evidence that timing of menopause may be hereditary, so a woman could possibly get an idea of when she may go through menopause by speaking to her mother or older sisters.

What are the first physical signs of menopause?

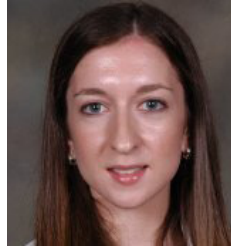
Women may notice a change in their menstrual cycle length, the number of days of bleeding, the heaviness of their menstrual flow, or they may experience vasomotor symptoms such as hot flashes and night sweats. Other women will notice that they have early morning awakening, "like an alarm is going off at a specific time."

Continued on page 4

Welcome to the Class of 2016

Penn's Department of Psychiatry welcomes the class of 2016 to the residency training program! On June 20, the current class of interns in psychiatry began their training. They were chosen from 688 applicants, of whom 87 were actually ranked. These 10 extremely talented young doctors – 8 women and 2 men – were at the top of their medical school classes and demonstrated a strong commitment to the field, as well as great leadership potential. Next year's recruitment efforts began on September 1, 2012 and will continue until January 31, 2013.

For more information about the Penn Department of Psychiatry's residency training program and this year's incoming class, please visit <http://www.med.upenn.edu/psychres>.



Julianna Finelli, MD



Andi Fu, MD



Matthew Jarrett, MD



Michelle Joy, MD



Maria Julios Costa, MD



Cecilia Livesey, MD



Barbara Robles, MD



Anne Taylor, MD



Jeff Zhao, MD



Jessica Zoltani, MD

Forensic Psychiatry Fellowship Program Receives Accreditation for Full Five-Year Cycle

In June, the Department of Psychiatry received official notification from the Accreditation Council for Graduate Medical Education (ACGME) that the Department's Forensic Psychiatry Fellowship Program has been accredited for a full five-year cycle. The one-year program, which began in July 2009, provides fellows with didactic education and practical experience in forensic psychiatry, enabling them to practice this psychiatric subspecialty in an ethical and scientific manner. Robert L. Sadoff, MD is the Program Director and Kenneth J. Weiss, MD is the Associate Director. The program was the first and is the only forensic psychiatry training program in the Philadelphia area. On July 1, 2012, the program began its fourth year, when two fellows – John Northrop, MD, PhD and Samson Gurmu, MD – began their training. Dr. Northrop completed the Penn Psychiatry residency program in June, and Dr. Gurmu completed an Addiction Fellowship at Penn this year.

For additional information about the Forensic Psychiatry Fellowship Program, please visit: <http://www.med.upenn.edu/psych/forensic.html>.

In the News

Penn Department of Psychiatry faculty are highly acclaimed experts in their chosen fields, often contacted by local, national, and international media outlets for their knowledge about topics of immediate interest. In this section, we provide just a brief sample of the many recent interactions that our faculty have with the press. For a more complete listing, please visit Penn Psychiatry In the News - <http://www.med.upenn.edu/psych/news.html>.



Lack of Sleep Tied to Stroke Risk

Philip Gehrman, PhD, CBSM, Assistant Professor of Clinical Psychology in Psychiatry, was a featured expert in an NBC Nightly News national broadcast describing the importance of a new study linking lack of sleep and stroke in people of healthy weight. The study showed that the risk for stroke is increased by over 400 percent in middle-aged or older Americans who get less than 6 hours of sleep per night, even when those people are neither overweight nor inactive.



“Addicted” to Tanning?

David Sarwer, PhD, Professor of Psychology in Psychiatry, spoke with 6ABC (Philadelphia) about body dysmorphic disorder (BDD). “These are individuals that become preoccupied with minor or imagined defects in appearance and then go to excessive means to address that dissatisfaction,” Dr. Sarwer said in the interview. BDD affects 1 to 2 percent of the population.



Premenstrual Dysphoric Disorder Likely to Become Full Diagnosis

C. Neill Epperson, MD, Associate Professor of Psychiatry and Obstetrics and Gynecology and Director of the Penn Center for Women’s Behavioral Wellness, was interviewed by NPR affiliate WHYY (Philadelphia) in a segment discussing premenstrual dysphoric disorder (PMDD), a condition that may be included in the upcoming new edition of the Diagnostic and Statistical Manual of Mental Disorders. PMDD, marked by severe mood swings, irritability, anger, and sadness, affects 2 to 5 percent of menstruating women. “You are actually talking about a group of people who are in the minority but have significant symptoms that affect their quality of life,” said Dr. Epperson.

Drug to Help Some Women Improve Memory

CBS 3 (Philadelphia) reported that researchers at Penn Medicine, led by **C. Neill Epperson, MD**, are testing a medication commonly used to treat ADHD for menopausal women struggling with memory and focus. The hope is that by supporting dopamine function in the prefrontal cortex, Vyvanse will offset the effects of declining estrogen which are thought to contribute to worsening in focus, attention, and certain aspects of memory and concentration in some women. “This would be the first randomized clinical trial of a psychostimulant to improve cognition in healthy menopausal women,” said Dr. Epperson.

Continued from page 1

Do women typically experience behavioral changes (e.g., mood, cognitive, libido) during menopause?

Some women sail through menopause, but a substantial portion do not. The severity of typical menopausal symptoms may depend on whether the woman experiences a natural menopause or whether she undergoes chemotherapy or a surgical procedure that renders her acutely postmenopausal. Women in the latter category typically have more severe mood, cognitive, and vasomotor symptoms, as the loss of estrogen is abrupt. Hot flashes are the most common menopausal symptom, occurring in two thirds of women undergoing a natural menopause and almost all women with an induced menopause. Mood symptoms occur frequently. Ellen Freeman, PhD, Research Professor of Obstetrics and Gynecology at Penn, and other investigators across the U.S. have determined that there is an increased risk of clinical depression in the perimenopause. The risk goes up if one has a history of severe premenstrual syndrome or previous major depressive disorder (MDD).

Whether cognition worsens at menopause or with loss of estrogen has been hotly debated and is still an area of intense research. Clearly, some aspects of cognition worsen as both men and women age. However, estrogen has robust and broad effects on multiple neurotransmitter systems involved in learning and memory. Hence, the loss of estrogen at menopause would theoretically lead to cognitive impairment. However, only a subset of women have moderate to severe complaints and, again, these symptoms seem to be more pronounced in those women who undergo menopause acutely.

Finally, most women want to know if they should expect to have a decline in libido when they go through menopause, particularly if they do not choose to use hormone therapy. The answer to this question is as complex as the issue of female sexuality itself. If a woman is experiencing pain with intercourse due to severe vaginal dryness (a common result of low estrogen), she is unlikely to be as interested in having sex. This problem can be remedied with the use of vaginal estrogen preparations if a woman cannot or wishes not to use systemic estrogen (oral or transdermal). However, sexual issues in women are not typically this easy to treat, as relationship and psychological factors play a large role in female sexual desire and response. According to a large epidemiologic study

conducted by Dr. Lorraine Dennerstein at the University Melbourne, Australia, one of the best predictors for a good libido during the menopause transition is having a new sexual partner. While I'm not suggesting that peri- and post-menopausal women ditch their old partners and find a new one in order to have a good sex life, these data highlight the importance of relationships in women's sexual lives. Overall, there is no clear evidence that testosterone treatment improves sexual functioning in menopausal women.

Are there treatments for the behavioral changes that women experience during menopause?

The gold standard treatment for vasomotor symptoms is estrogen therapy. However, since the Women's Health Initiative results were first released in 2002, the use of hormone therapy (HT) has become controversial again. According to the North



Pictured L to R: Dr. Sarah Mathews, Dr. Delane Casiano, Dr. C. Neill Epperson, Dr. Lindsay Sortor, & Dr. Deborah Kim

American Menopause Society, the use of estrogen and estrogen/progestin therapy should be considered on a case-by-case basis, weighing the pros and cons for a given individual. With this said, it appears that the benefits of estrogen use are greater when estrogen treatment is started close to the final menstrual period. Many women will use estrogen in the perimenopause and then into the postmenopause to control vasomotor symptoms, manage mood swings, and improve sleep. With respect to mood, there are two relatively small randomized

controlled trials (RCTs) that demonstrate the antidepressant effects of estradiol for perimenopausal women with MDD onset in the menopause transition. Hence, estrogen is a legitimate treatment for clinical depression and depression symptoms, particularly in an individual with other menopausal symptoms like hot flashes, disturbed sleep due to night sweats, and vaginal dryness.

Women who have had depression at other times of their lives and whose present episode does not appear to be related to the menopause transition should not think of estrogen as a first-line antidepressant. Instead, these women should consider a more traditional psychotropic medication regimen and add estrogen as an adjunct if they are bothered by significant menopausal symptoms. Interestingly, several psychotropic medications such as selective serotonin reuptake inhibitors, serotonin-norepinephrine reuptake inhibitors, and gabapentin have all demonstrated superiority over placebo

Continued on page 5

Continued from page 4

in the treatment of hot flashes. These agents are not typically as effective as estradiol, but have a different side-effect and contraindication profile.

What are the major short-term and long-term consequences of these treatments?

When initiated in the perimenopause or early postmenopausal period, the use of hormone therapy can be quite safe if a woman has no known contraindications, such as a personal history of blood clots, gynecologic/breast cancer, or a family history of multiple gynecologic/breast cancers. For women who have significant menopausal symptoms, the use of HT can feel like a "life saver." Alternatively, for women with no symptoms, the initiation of HT may not lead to noticeable benefits of well-being. However, HT supports bone health and there is some evidence that early use of estrogen may benefit cardiac and brain health, at least in some individuals. At present, we have very little data to inform us as to which women will have behavioral difficulties in low estrogen states and therefore benefit from hormone therapy.

Is there ongoing research at Penn on new treatments for any of these behavioral changes?

I and my staff at the Penn Center for Women's Behavioral Wellness are conducting research aimed at elucidating the relative importance of estrogen and serotonin in certain aspects of cognition and mood regulation in menopausal women. In this study, women who are within 10 years and 11 months since their final menstrual period (FMP) and are healthy overall, both physically and psychiatrically, undergo tryptophan depletion and functional magnetic resonance imaging (fMRI) both before and after randomization to

estrogen or placebo treatment. This paradigm allows investigators to tease apart the individual and interactive effects of estrogen and serotonin on working memory (a type of executive function), verbal recall, and affective processing. This project was originally funded by the National Institute on Aging through funding made available by the American Reinvestment and Recovery Act (Thank you President Obama!). We will continue this line of investigation through funding from the National Institute of Mental Health and the NIH Office of Research on Women's Health.

I have also received funding from Shire Pharmaceuticals through an Investigator Initiated Study to examine the impact of lisdexamphetamine (LDX, Vyvanse®) on executive function and prefrontal cortex activation in menopausal women with subjective cognitive complaints. I designed and initiated this study with my colleague at Yale, Dr. Tom Brown, after our previous study with atomoxetine revealed positive effects of the medication on self-reports of focused attention and working memory. LDX is a potent psychostimulant that is FDA approved for the treatment of attention deficit hyperactivity disorder (ADHD). Women ages 45 to 60 who are within the first 5 years of their FMP, physically and psychiatrically healthy, with no history of ADHD/ADD and experiencing onset of memory, attention or organization difficulties in the menopause transition are invited to participate. Menopausal women frequently report a decline in these domains of cognition, commonly referred to as executive functions, and may benefit from treatment with a typical ADHD medication such as LDX. In addition to funding the randomized clinical trial, Shire Pharmaceuticals has recently agreed to provide support for an add-on brain imaging study. This multi-

modal imaging study will combine fMRI and proton magnetic resonance spectroscopy (1H-MRS) to measure neural activation and glutamate concentrations, respectively, in the dorsal lateral prefrontal cortex while women complete a challenging working memory task. Both the randomized controlled trial and the brain imaging study are the first of their kind and promise to provide exciting new evidence regarding the impact of psychostimulants on cognitive performance, brain activation, and self-report of executive functions in menopausal women.

My laboratory is continuing to recruit women to participate in all of our menopause-related research. While subjects are compensated for their time, we recognize that it requires a certain degree of altruism for women to fit research participation into their already busy schedules. However, we remind each individual that their participation helps to create new knowledge in areas that are critically important to women's health and well-being.

For more information about what to expect at menopause, please visit: <http://www.why.org/91FM/voices201203.html> to hear Dr. Epperson's March 19, 2012 interview with Dr. Dan Gottlieb on his "Voices in the Family" WHYY Radio [Philadelphia] show.

To learn more about the clinical services of the Penn Center for Women's Behavioral Wellness, make a referral, or schedule an appointment, please call the Center's Intake Coordinator at 215-573-8886. If interested in participating in research, please contact the research coordinators at 215-41-STUDY (215-417-8839). You may also obtain additional information by visiting the PCWBW website at <http://www.med.upenn.edu/womenswellness/>. The PCWBW is located in West Philadelphia at the Hospital of the University of Pennsylvania, 3535 Market Street, and 3701 Market Street, and in Center City Philadelphia at Pennsylvania Hospital.

Learn More

To learn more about **C. Neill Epperson, MD**, our featured expert this month, and the Penn Center for Women's Behavioral Wellness, please see our cover story about Dr. Epperson and the Center in the Summer 2010 issue of Penn Psychiatry Perspective at: http://www.med.upenn.edu/psych/documents/PPP_summer_2010.pdf.

Awards and Honors

Two Department of Psychiatry faculty were honored with awards from the Perelman School of Medicine.

Charles P. O'Brien, MD, PhD, Kenneth E. Appel Professor of Psychiatry and Director of the Penn Center for Studies in Addiction, received a 2012 Special Dean's Award, which "recognizes outstanding achievements in medical education by faculty members, particularly in the development of new, innovative educational programs." An internationally acclaimed addiction scientist, Dr. O'Brien created a required course on substance abuse, which became part of the first year medical education curriculum in 1989. The course is believed to be the only full course on substance abuse at any medical school. It stresses the latest in research on the treatment of addiction, including discoveries that originated at Penn, such as the use of naltrexone to treat alcoholism and the Addiction Severity Index which measures level of addiction (University of Pennsylvania Almanac, May 1, 2012, p. 5).

Anthony L. Rostain, MD, MA, Professor of Psychiatry and Pediatrics and Director of Education for the Department of Psychiatry where he is responsible for overseeing medical student education, residency, and fellowship training, received the 2012 Robert Dunning Dripps Memorial Award for Excellence in Graduate Medical Education. This award "recognizes excellence as an educator of residents and fellows in clinical care, research, teaching, or administration." Dr. Rostain has dedicated his career to improving clinical education in psychiatry in academic, professional, and community settings (University of Pennsylvania Almanac, May 1, 2012, p. 1).

Department of Psychiatry faculty also received prestigious national and international honors.

Aaron T. Beck, MD, University Professor Emeritus of Psychiatry, recently earned several significant honors. In December 2011, he received the 23rd annual

Edward J. Sachar Award from the Department of Psychiatry at Columbia University for his work confronting the challenge of treating low functioning patients with schizophrenia. In January 2012, Dr. Beck was recognized by the Prince Mahidol Foundation in Thailand as a co-recipient of Prince Mahidol Award in Medicine for his outstanding contribution in the development of cognitive behavioral therapy. Dr. Beck was also awarded an honorary Doctor of Medical Sciences degree from Yale University in May 2012 for his "pioneering work" in "advancing our understanding of mental health, transform[ing] the treatment of mental illnesses, and set[ting] new standards for assessing the effectiveness of psychotherapy." Yale's Department of Psychiatry also honored him with its Distinguished Alumni Award - the plaque he received included his 1946 Yale School of Medicine class photo. Most recently, in July 2012, Dr. Beck received the Doctor Honoris Causa Award of the Babes-Bolyai University in Romania for his contributions to the fields of psychology and psychiatry.

Charles P. O'Brien, MD, PhD, Kenneth E. Appel Professor of Psychiatry and Director of the Penn Center for Studies in Addiction, received the 2012 Jellinek Foundation Award for Alcoholism Research at the 35th Annual Meeting of the Research Society on Alcoholism in San Francisco. The Jellinek Foundation, based in Toronto, Canada, cited Dr. O'Brien's research on the development of a neuroscience-based treatment for alcoholism. Beginning in 1983, Dr. O'Brien and colleagues at Penn conducted clinical trials of naltrexone, an opioid receptor antagonist that blocks the alcohol high and reduces alcohol craving. In numerous controlled trials, this medication in combination with counseling has been found to significantly reduce relapse to heavy drinking. Originally developed by the National Institute on Drug Abuse (NIDA) for the treatment of heroin addiction, naltrexone won FDA approval for use in alcoholism despite the absence of a pharma-initiated development program. The discovery of the role of endogenous opioids in alcoholism has opened the

field to new therapies, including another opioid antagonist being used successfully in Europe. In September 2012, the International Society for Biomedical Research on Alcoholism at its meeting in Sapporo, Japan awarded O'Brien the James Isaacson Award for a lifetime of research on the biological basis of alcoholism.

Karl Rickels, MD, Stuart and Emily B.H. Mudd Professor of Human Behavior and Professor of Psychiatry, was recognized for work in developing anxiety disorder medications as one of the recipients of the 2012 "CINP Pioneers in Psychopharmacology Award" from the International College of Neuropsychopharmacology (CINP). Established in 2002 and given every two years, the awards honor three individuals worldwide who have made major contributions to the field. Dr. Rickels, a leading figure in the field of pharmacotherapy, received the award "for his groundbreaking work in the development of medications to treat anxiety disorders." For more information about Dr. Rickels and the award, please visit: <http://westmorelandtimes.com/news/2012/06/researcher-recognized-for-work-in-developing-anxiety-disorder-medications-2206120919420171001/>.

Thomas A. Wadden, PhD, Albert J. Stunkard Professor of Psychiatry and Director of the Center for Weight and Eating Disorders, was awarded the prestigious Bud Orgel Award for Distinguished Achievement in Research from the Association of Psychologists in Academic Health Centers (APAHC). The award recognizes "outstanding psychologists who work in and contribute to the advancement of research and scholarship in medical school and health care settings." Dr. Wadden is one of the nation's premier obesity researchers. He has devoted over three decades to studying the treatment of obesity by methods that have included lifestyle modification, very-low-calorie diets, exercise, medication, and surgery. He has also investigated the metabolic and psychosocial consequences of obesity and weight loss. For more information about the award, please visit: <http://www.div12.org/section8/APAHCAward.html>.



Leadership Appointments

David Mandell, ScD, Associate Professor of Mental Health Services in Psychiatry, was appointed Director of the Center for Mental Health Policy and Services Research (CMHPSR) in the Department of Psychiatry, effective July 1, 2012. Dr. Mandell succeeded **Trevor Hadley, PhD**, CMHPSR's Founding Director, who will remain on the faculty and direct the fellowship program in public psychiatry. CMHPSR was established in 1986. The Center consists of a multidisciplinary group of faculty and staff who study the organization, financing, and delivery of mental health care and provide consultation and technical support to agencies, cities, and states attempting to improve care for individuals with psychiatric and developmental disabilities. Dr. Mandell has developed a reputation as one of the foremost autism services researchers in the U.S. His federally funded research examines the best ways to improve care for individuals with autism and other psychiatric and developmental disabilities.

Upcoming Events

The annual **Cognitive Behavioral Therapy for Insomnia (CBT-I) Conference**, led by **Michael L. Perlis, PhD**, is being held October 19-21, 2012, in Bethesda, MD. The goal of the three day workshop is a total immersion in the subject of insomnia from the etiology and pathophysiology of the disorder to the concepts and theories that serve as the foundation for treatment. For more information about the conference please visit: <http://www.med.upenn.edu/cbti/>.



Announcements

Registration Now Open for Social Skills Seminar for Young Adults

Offered by the Penn Adult Social Learning Disorders Program

Adults with Aspergers Syndrome and other social learning disorders have unique social deficits that interfere with their ability to communicate effectively, find employment, and develop meaningful interpersonal relationships. The **Social Learning Disorders Program** of the University of Pennsylvania Department of Psychiatry offers an innovative 8-week seminar designed for young adults to improve social skills. Registration is now open for the Fall 2012 session, which begins on October 23rd.

To learn more about the Social Skills Seminar for Young Adults, call 215-746-7233. For more information about the Penn Social Learning Disorders Program, visit our website at <http://www.med.upenn.edu/add/sldp.html>.

Get Healthy When the Kids Go Back to School!

The University of Pennsylvania's **Albert J. Stunkard Weight Management Program** builds on decades of research expertise to provide the highest quality of weight loss treatment. To learn more about discounts for Penn and UPHS employees, visit our website at <http://www.med.upenn.edu/weightloss/> or call 215-746-4100 to register for a FREE orientation.

