



PENN PSYCHIATRY PERSPECTIVE



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

Ideas, Suggestions, and News!

We welcome your ideas, suggestions, and news about your activities for stories or announcements in Penn Psychiatry Perspective, the eNewsletter of the University of Pennsylvania Department of Psychiatry. Our goal is to offer useful and interesting news to readers and highlight our many outstanding faculty, programs, and services. Please submit your recommendations to psychweb@mail.med.upenn.edu.

*Dwight L. Evans, MD
Ruth Meltzer Professor and Chair*

Departmental Goings On

How Quickly Smokers Metabolize Nicotine May Point to Most Effective Way to Quit



Caryn Lerman, PhD was the lead author of a new study providing evidence that the most-suited treatment for smokers may depend on how quickly they metabolize the nicotine in their bodies after quitting. In a first-of-its-kind randomized clinical trial involving 1246 treatment-seeking smokers, the team found that smokers who metabolize nicotine normally were more likely to quit on varenicline (Chantix), while slow metabolizers would likely do better on the nicotine patch. The study was published online on January 11, 2015 in *The Lancet Respiratory Medicine*.

Identifying more effective ways to help smokers quit the habit is critical, as nearly 70 percent of smokers who try to quit relapse within one week. "This is a much-needed, genetically-informed biomarker that could be translated into clinical practice," said Dr. Lerman in a January 12, 2015 Penn Medicine news release. "Matching a treatment choice based on the rate at which smokers metabolize nicotine could be a viable strategy to help guide choices for smokers and ultimately improve quit rates."

The difference between slow and normal metabolizers is how long nicotine stays in the body after quitting. Nicotine levels drop more quickly in normal metabolizers, putting them at risk to succumb to the cravings and relapse. But they are also more likely to be helped by medications like varenicline, which can increase levels of the neurotransmitter dopamine in their brains and reduce cravings to smoke. In the study, investigators used blood testing to assess the nicotine metabolite ratio, used to distinguish normal from slow metabolizers of nicotine. The study results showed that nearly 40 percent of normal metabolizers on varenicline were still abstaining from smoking at the end of treatment, compared to 22 percent on the patch. The findings indicated that varenicline was more efficacious than the nicotine patch for normal metabolizers, while the efficacy was equivalent for slow metabolizers. However, the slow metabolizers reported more overall side effects, suggesting those smokers would gain more benefit from the patch.

"These findings not only support the use of the nicotine metabolite ratio as a biomarker to guide treatment choices," Dr. Lerman said, "but also underscore the notion that tobacco dependence is a heterogeneous condition and that smoking cessation treatments are not equally effective for all smokers."

The study was widely covered in the print and electronic media, including *BBC News*, *Huffington Post*, *HealthDay News*, *Washington Post*, *New York Daily News*, *Medical Daily*, *Irish*

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Departmental Goings On

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Examiner, CTV News, *Yahoo! News*, *WebMD*, the *Daily Mail*, BBC World Service Radio, ABC7 television (New York), and WHYY Newsradio (Philadelphia).

Dr. Lerman is the Mary W. Calkins Professor in Penn's Department of Psychiatry and Annenberg School for Communication, Deputy Director of Penn's Abramson Cancer Center, and Director of the Brain and Behavior Change Program. She is also the Director of the Center for Interdisciplinary Research on Nicotine Addiction (CIRNA) in the Department of Psychiatry. Other authors from the Department of Psychiatry were **Robert**

A. Schnoll, PhD and **E. Paul Wileyto, PhD**. Other Penn authors included Daniel F. Heitjan, PhD. Outside of Penn, study co-authors included investigators from the Centre for Addiction and Mental Health at the University of Toronto (Canada), State University of New York at Buffalo, MD Anderson Cancer Center, University of California at San Francisco, and Stanford University.

View the January 12, 2015 Penn Medicine News Release at - http://www.uphs.upenn.edu/news/News_Releases/2015/01/lerman/

Penn Medicine Team Develops Cognitive Test Battery to Assess the Impact of Long Duration Spaceflights on Astronauts' Brain Function



Mathias Basner, MD, PhD, David F. Dinges, PhD, and Ruben C. Gur, PhD (pictured left to right) led an effort to help the National Aeronautics and Space Administration (NASA) learn more about how cognition is affected by prolonged spaceflight, and what aspects of cognition are primarily affected. To this end, they developed a cognitive test battery, known as "Cognition", for the National Space Biomedical Research Institute (NSBRI) to measure the impact of typical spaceflight stressors (like microgravity, radiation, confinement and isolation, exposure to elevated levels of CO₂, and sleep loss) on astronauts' cognitive performance. This computer-based test has already been tested by astronauts on Earth and was performed for the first time in a pilot study on the International Space Station (ISS) on November 28, 2014.

"Cognition" is a brief and sensitive computerized neuro-cognitive test battery for spaceflight. With its 10 tests, it is more comprehensive than NASA's current test battery. Dr. Basner stated in a November 26, 2014 Penn Medicine news release

that "'Cognition' addresses, among other areas, spatial orientation, emotion recognition, and risk decision making, which we believe are essential for the success of exploration-type space missions." He added, "We know that astronauts are highly motivated and usually outperform the general population. The difficulty of the tests therefore had to be tailored to astronauts, to avoid both boredom and frustration."

The three Penn study authors are also participating with "Cognition" in a NASA effort to study the molecular, physiological, and psychological effects of spaceflight on the human body by comparing identical twins, evidencing the need for a comprehensive cognitive test battery for spaceflight (see *Penn Psychiatry Perspective*, April 2014, v.3, issue 4, p. 4).

Dr. Basner is Assistant Professor of Sleep and Chronobiology in Psychiatry at Penn. Dr. Dinges is Professor of Psychology in Psychiatry and Director of the Division of Sleep and Chronobiology in the Department of Psychiatry. Dr. Gur is Professor of Psychology in Psychiatry and Director of the Brain Behavior Laboratory and the Center for Neuroimaging in Psychiatry in the Department of Psychiatry. The other researchers in the Department of Psychiatry involved in the effort included **Raquel E. Gur, MD, PhD, Allison Port, BA, Sarah McGuire, PhD, Jad Nasrini, Adam Savitt, and Tyler Moore, PhD.**

View the November 26, 2014 Penn Medicine News Release at - http://www.uphs.upenn.edu/news/News_Releases/2014/11/basner/

News and Announcements

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>.

Drug May Help Fight Obesity



Thomas A. Wadden, PhD and **Matthew R. Hayes, PhD** were interviewed in a January 5, 2015 *Philadelphia Inquirer* article about a new injectable drug for weight loss recently approved by the Food and Drug Administration. The drug, liraglutide, marketed under the name Saxenda, is part of a new class of diabetes medicines that prompts the pancreas to make extra insulin after meals. Dr. Hayes explained that the drug slows the passage of food from the stomach to the small intestine, bolstering the "I'm full" signal in the brain. "Like the other drugs, it does get into the brain, which was taboo for a while," he added, "but it helps control satiation."

Dr. Wadden, a paid consultant to Novo Nordisk, the drug's manufacturer, conducted a follow-up clinical trial to the initial drug study. This second trial found that users experienced an additional six (6) percent weight loss on average during a second year on Saxenda. "I was pleasantly surprised," said Dr. Wadden. "I think this drug is of potential benefit for inducing weight loss, but more important, for helping patients keep the weight off and go further, which is the bigger challenge."

Dr. Hayes is Assistant Professor of Nutritional Neuroscience in Psychiatry and Dr. Wadden is the Albert J. Stunkard Professor of Psychology in Psychiatry and Director of the Center for Weight and Eating Disorders in the Department of Psychiatry.

View the January 5, 2015 *Philadelphia Inquirer* article at - http://articles.philly.com/2015-01-05/news/57668674_1_victoza-weight-loss-novo-nordisk

Symptoms of Adult ADHD



Anthony L. Rostain, MD, MA discussed traits in adults that may be signs of ADHD, or Attention Deficit Hyperactivity Disorder, in a January 19, 2015 *Men's Health* article. ADHD is one of the most common mental disorders diagnosed in children, but adults are also at risk. The symptoms of adult ADHD include interrupting often, trouble with time management, not following through on projects, and road rage, about which Dr. Rostain said, "It's a combination of being angry at the situation they are in, feeling trapped, and feeling like they've misjudged their time and are going to be late. A lot of people are afraid of what those consequences will be." In all, Dr. Rostain shared his views on 10 symptoms of adult ADHD. Dr. Rostain is Professor of Psychiatry and Pediatrics at Penn and Co-Founder and Medical Director of the Penn Adult ADHD Treatment and Research Program in the Department of Psychiatry.

View the January 19, 2015 *Men's Health* article at - <http://www.menshealth.com/health/adult-ADHD-symptoms>

News and Announcements

In the News

The Secret Life of Thoughts



Aaron T. Beck, MD was on the January 16, 2015 NPR podcast, "Invisibilia." He discussed the tenets of cognitive behavior therapy, a revolutionary form of therapy he discovered. He found that when patients focused on their negative thoughts and evaluated their validity, they got better sooner. Dr. Beck labeled these thoughts "automatic negative thoughts." "What's interesting about the automatic thought - and this is true of everybody," Dr. Beck said, "is that people tend to accept them at their face value. And they don't look for alternative explanations or for what evidence is behind them."

Cognitive behavior therapy (CBT) is used by therapists all over the world, and Dr. Beck is universally recognized for developing it. Just last October, the Dalai Lama paid Dr. Beck an informal visit. Over lunch, they discussed extensively the relationship between cognitive therapy and Buddhism, just one example of the far-reaching intellectual impact that CBT has had since Dr. Beck invented it over five decades ago as a faculty member in Penn's Department of Psychiatry.

Dr. Beck is Emeritus University Professor of Psychiatry at Penn and Director of the Aaron T. Beck Psychopathology Research Center in the Department of Psychiatry.

Listen to the January 16, 2015 NPR segment at - <http://www.npr.org/programs/invisibilia/>

Awards and Honors

Regional, National, and International Honors

Dr. Mandell Honored for Work on Autism



David S. Mandell, ScD received the 2014 Transformative Contribution Award from the Autism Spectrum and Developmental Disorders (ASDD) Special Interest Group of the Association for Behavioral and Cognitive Therapies (ABCT). Dr. Mandell was honored for his "innovative and impactful work in the field of ASDD research." The official announcement of the award added, "Your efforts to build bridges between the varied scientific disciplines engaged in ASDD research and also the worlds of research and clinical practice deserve recognition and applause." The ABCT seeks to understand and improve human functioning through the investigation and application of behavioral, cognitive, and other evidence-based principles to the assessment, prevention, treatment of human problems, and the enhancement of health and well-being.

Dr. Mandell is Associate Professor of Psychiatry and Pediatrics at Penn and Director of the Center for Mental Health Policy and Services Research (CMHPSR) in the Department of Psychiatry.

News and Announcements

Announcements



It Takes a Village: Creating a Positive School Experience for your Child with Autism

Learn about services for school-aged children with autism from experts from the School District of Philadelphia, Community Behavioral Health, Elwyn, Inc., and the University of Pennsylvania on April 24, 2015. The event is free to attend and open to parents, professionals, & students. Pre-registration is required. To register or learn more about the event, please visit <https://autismphilly.eventbrite.com/> or call 215-573-8472.

Spring 2015 Dates Announced for Group Coaching Program for Adults with ADHD

Come learn essential time-management, organizational, and planning skills through the University of Pennsylvania's Adult ADHD Treatment & Research Program. Discover how mindfulness can help you manage stress and improve your attention and focus. For more information, please visit http://www.med.upenn.edu/add/adhd_group.html.



Human Trafficking of Women and Children in the United States: Policy and Prevention

Interested health care professionals are invited to participate in a psychoanalytically informed live conference and simultaneous webinar to train health care professionals to identify, treat and advocate for survivors of the particular trauma of human trafficking. This event is free of charge. Funding has been provided by the American Psychoanalytic Foundation through the American Psychoanalytic Association. For more information, visit www.healthcareagainstrafficking.com/ or email info@healthcareagainstrafficking.com.

Upcoming Events

Department of Psychiatry Grand Rounds

Department of Psychiatry Grand Rounds are held from 12:00 noon to 1:00 pm on the designated dates. All Grand Rounds for the 2014-2015 academic year will be held in the BRB Auditorium. The next two lectures are listed below. For more information about Grand Rounds and the 2014-15 schedule, please visit - <http://www.med.upenn.edu/psych/rounds.html>. To join our email listserv, please send an email to nataliec@upenn.edu.

February 26, 2015

Psychotherapy Module
Couples and Adult Families

Speaker: Ellen M. Berman, MD
Clinical Professor of Psychiatry
Founder & Director of Training
Center for Couples and Adult Families
Department of Psychiatry
Perelman School of Medicine at the University of Pennsylvania

Speaker: Jacqueline Hudak, PhD, LMFT
Clinical Director, Center for Couples and Adult Families
Department of Psychiatry
Perelman School of Medicine at the University of Pennsylvania

March 12, 2015

Psychotherapy Module: Psychoanalytic/Psychodynamic
Cluster

Speaker: Nancy McWilliams, PhD, ABPP
Visiting Professor
Graduate School of Applied and Professional Psychiatry
Rutgers, The State University of New Jersey

March 26, 2015

Psychotherapy Module: Psychoanalytic/Psychodynamic
Cluster

Speaker: Lawrence D. Blum, MD
Clinical Assistant Professor of Psychiatry
Department of Psychiatry
Perelman School of Medicine at the University of Pennsylvania