Sleep Scientists Want Your Workdays to Start Later

Mathias Basner, MD, PhD was the lead author of a study published in the December 2014 issue of the journal Sleep that identified characteristics and behaviors associated with short sleep that could be targeted to reduce its negative health consequences. The study suggested that interventions to increase sleep time should concentrate on delaying the morning start time of work and educational activities (or making them more flexible), increasing sleep opportunities, and shortening morning and evening commute times. In conducting the study, Dr. Basner’s Penn Medicine research team analyzed data from a representative sample of 124,517 Americans 15 years and older, who participated in the American Time Use Survey (ATUS) between 2003 and 2011.

“Intervention programs and educational campaigns can only be successful if they target the right behavior, at the right time of day, and in the right population,” Dr. Basner said in a December 12, 2014 Penn Medicine news release. “Time use surveys provide these crucial insights that cannot be derived from experimental or epidemiological studies. The evidence that time spent working was the most prominent sleep thief was overwhelming. It was evident across all socio-demographic strata and no matter how we approached the question.”

The research offers potential avenues for policy makers to help increase sleep time and improve public health, such as postponing work and class start times, or incentivizing more flexible scheduling. The findings also point to behaviors unrelated to work that are associated with short sleep and could be addressed by the individual to increase sleep time. These include watching TV late at night or spending prolonged periods of time in the bathroom grooming each morning. In these areas, the researchers said, raising awareness about the importance of sufficient sleep for health and safety may be necessary to reduce the prevalence of short sleep.

The review article was widely covered in the print and electronic media, including New York Magazine, Examiner, De Telegraaf (The Netherlands), Daily Mail (UK), dailyRx, Medical Daily, ZME Science, xpose entertainment (Ireland), Scienceblogs.com, Huffington Post, Self Magazine, Inc., and Men’s Health (Australia).

Dr. Basner is Assistant Professor of Sleep and Chronobiology in Psychiatry at Penn. The other authors of the study from the Unit of Experimental Psychiatry/Division of Sleep and Chronobiology in the Department of Psychiatry at Penn are Andrea Spaeth, PhD and senior author David F. Dinges, PhD.

Mentally Ill More Likely to be Tested for HIV

Michael B. Blank, PhD was the senior author of a new study published online on December 2, 2014 in AIDS Patient Care and STDs that found that the mentally ill are more likely to be tested for HIV, consistent with previous analyses. The researchers also found, for the first time, that those with the most serious illnesses, such as schizophrenia spectrum disorders and bipolar disorder, had the highest rates of HIV testing.

The study assessed a nationally representative sample from 21,785 adult respondents using the 2007 National Health Interview Survey (NHIS). The 2007 version of the NHIS survey is the most recent cycle of the survey that included information both on self-reported mental health diagnoses and HIV testing. Thirty-five percent (35%) of the general, nonmentally ill population reported having ever been tested for HIV. Among persons reporting any mental illness, 48.5 percent had been tested for HIV. More specifically, 64 percent of persons with a schizophrenia spectrum disorder, 63 percent of persons with bipolar disorder, and 47 percent of persons with depression and/or anxiety reported ever being tested for HIV.

“Our study shows that persons with mental illness and/or their care providers recognize that they are at higher risk and should be tested,” said Dr. Blank in a December 4, 2014 Penn Medicine news release. “However, by no means we should be complacent since these results may in large part be due to individual vigilance. The fact is there are few formal prevention and screening efforts targeted at this at-risk population. In light of the fact that mentally ill people are more likely to engage in risky behavior, mental health providers should consider routinely offering HIV/AIDS testing, something that does not typically occur now.”

HIV infection and mental illness are often co-occurring health conditions, with nearly half of persons living with HIV having a psychiatric disorder, while between 5 to 23 percent of those with mental illness are infected with HIV.

The study was covered in the print and electronic media, including the Examiner, Medical Daily, PsychCentral, and CBS Johnstown.

Dr. Blank is Associate Professor of Psychology in Psychiatry and Co-Director of the Penn Mental Health AIDS Research Center in the Department of Psychiatry at Penn. Lead author Baligh R. Yehia, MD is Assistant Professor of Medicine at Penn and is Director of the Penn Medicine Program for Lesbian, Gay, Bisexual, and Transgender Health. Other co-authors on the study were from several units within the Centers for Disease Control and Prevention (CDC) - the National Center for Chronic Disease Prevention and Health Promotion; National Center on Birth Defects and Developmental Disabilities; and the National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention in the Division of HIV/AIDS Prevention in the CDC.


Scientists Identify Brain Regions that May Predict Success Rate for Quitting Smoking

James Loughead, PhD was the lead author and Caryn Lerman, PhD the senior author of a new study that found that the brain’s self-control center may predict the chance of relapse after an attempt to quit smoking. Quitting smoking sets off a series of changes in the brain that may better identify smokers who will start smoking again. The study, which was published online on December 3, 2014 in Neuropsychopharmacology, found that smokers who relapsed within seven days had specific disruptions in the brain’s working memory system during abstinence. Such neural activity could help distinguish successful quitters from those who fail at an earlier stage and serve as a potentially therapeutic target.

In the study, researchers used functional magnetic resonance imaging (fMRI) to explore the effects of brief abstinence from smoking on working memory and its associated neural activation in 80 smokers seeking treatment. Participants were between ages 18 and 65 and reported smoking more than 10
cigarettes a day for more than six months.

“This is the first time abstinence-induced changes in the brain’s working memory circuit have been shown to accurately predict relapse in smokers,” said Dr. Lerman in a December 3, 2014 Penn Medicine news release. Dr. Loughead noted that “the neural response to quitting after only 24 hours could inform new and existing personalized intervention strategies for smokers, which are greatly needed.”

The study was covered in the print and electronic media, including the Philadelphia Inquirer, FoxNews.com, Oregonian, Medical News Today, Medical Daily, and NPR.

Dr. Loughead is Associate Professor of Psychology in Psychiatry and 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. Drs. Loughead and Lerman are members of the Center for Interdisciplinary Research on Nicotine Addiction (CIRNA) in the Department of Psychiatry – Dr. Lerman directs CIRNA. Other Penn authors, all from the Brain Behavior Laboratory in the Department of Psychiatry, are E. Paul Wileyto, PhD, Kosha Ruparel, MSE, Mary Falcone, PhD, Ryan Hopson, BA, and Ruben C. Gur, PhD.


Penn Psychiatry Faculty Member Informs Us About Sleep

David F. Dinges, PhD participated in several feature programs that informed the public about the importance of sleep to the human body. Dr. Dinges, Professor of Psychology in Psychiatry and Director of the Division of Sleep and Chronobiology in the Department of Psychiatry, appeared along with others in a National Geographic Channel documentary, “Sleepless in America,” which premiered on November 30, 2014. The program was paid for by the Public Good Project with NIH involvement - Francis S. Collins, MD, PhD, Director of the NIH, was featured in the film. The two-hour documentary explored an NIH-funded long-term, sleep restriction, and recovery study at Penn Medicine that measures how brain functions and metabolism, as well as caloric intake and weight, change after repeated exposure to multiple days of short then longer sleep opportunities - a pattern common for a great many people. “It’s the effects on health and neurobehavioral functions from the chronic weekday reduction of sleep that have me so concerned,” Dr. Dinges said in the film.

Earlier in the year, Dr. Dinges was also featured in segments of two cable programs that discussed the impact of long duration space flight on the human body, particularly related to a potential flight to the planet Mars. He was on the August 27, 2014 Science Channel's three-part series, “Man Versus the Universe”, in the episode “Mars is Ours”, which explored the various aspects of making a mission to occupy Mars a reality. He also appeared on a February 14, 2014 12-part BBC Horizon series, "Man on Mars: Mission to the Red Planet", which went behind the scenes at the National Aeronautics and Space Administration (NASA) to discover how it is preparing to land humans on the surface of Mars.
News and Announcements

In the News

Penn Psychiatry Faculty Member Informs Us About Sleep

Dr. Dinges was also quoted in a November 14, 2014 Science News article on human space flight (“Rigors of Mars Trip Make Teamwork a Priority”). The article included evidence developed by studying crew members simulating a 520-day trip to Mars from June 2010 to November 2011, a simulation called Mars 500 conducted by Russia, the European Space Agency, and China. In a study published on March 27, 2014 in PLOS ONE, lead author Mathias Basner, MD, PhD, Assistant Professor of Sleep and Chronobiology in Psychiatry at Penn, Dr. Dinges, and other investigators reported that men who experienced disturbed sleep quantity, quality, or timing during the mission developed a range of psychological and behavioral problems. Dr. Dinges told the Science News that it “is a serious scientific mystery” as to the psychological or biological factors that distinguished happy, well-rested participants from those who struggled with poor and temporally displaced sleep during the Mars 500 simulation.

View National Geographic Channel’s “Sleepless in America” website at -

View the November 14, 2014 Science News article at (subscription required) -

Regional, National, and International Honors

Dr. Kranzler Honored for Work on Addiction

Henry R. Kranzler, MD was recognized by two organizations for his work in the addiction field. In October 2014, he received the 2014 James H. Tharp Award for his work in the area of alcoholism - $15,000 was donated to the Center for Studies of Addiction in the Department of Psychiatry in his honor from the trust of James H. Tharp. Dr. Kranzler was nominated by the American Society of Addiction Medicine (ASAM) for this award. The ASAM is a professional society representing over 3,000 physicians and associated professionals dedicated to increasing access and improving the quality of addiction treatment; educating physicians, other medical professionals and the public; supporting research and prevention; and promoting the appropriate role of physicians in the care of patients with addiction.

In December 2014, Dr. Kranzler received the 2014 Dan Anderson Research Award from the Butler Center for Research at the Hazelden Betty Ford Foundation. This award honors a published article that advances the scientific knowledge of addiction recovery. The recognized study - “Topiramate Treatment for Heavy Drinkers: Moderation by a GRIK1 Polymorphism” – was published in the American Journal of Psychiatry in April 2014. The communication to Dr. Kranzler announcing the award stated that the Scientific Panel members who reviewed the nominated papers “were especially impressed with the methodological design of your study and continue to be excited about the prospect of gene-informed, medication-assisted treatment for problematic substance use. Given the widespread nature of heavy drinking and its deleterious consequences, the applicability of your findings is far-reaching.”

Dr. Kranzler is Professor of Psychiatry and Director of the Center for Studies of Addiction (CSA) in the Department of Psychiatry.
Announcements

Clinical Training at Hall-Mercer
Hall-Mercer Community Mental Health Center provides comprehensive outpatient services to Philadelphia residents in need, including a range of services for children and adults with developmental disabilities and mental illness. Trainees in the Hall-Mercer program may participate in a range of clinical rotations. Rotations include adult intake clinics, child intake clinics, child, adolescent and adult outpatient therapy, social rehabilitation groups, a therapeutic pre-kindergarten program, a child and parent center, adult medication clinics, and a day program for adults with intellectual disabilities. Visit the Hall-Mercer website for details - http://www.med.upenn.edu/hallmercer/training.shtml.

Do You Want to Start the New Year on a Healthy Note?
The Stunkard Weight Management Program at Penn Behavioral Health offers weight management groups and one-on-one dietary and behavioral counseling services. This multidisciplinary treatment program develops a custom plan for physical, nutritional, and behavioral therapy for each patient following an initial evaluation. More information is available at 215-746-4112 or http://www.med.upenn.edu/weightloss/.

TMS Treatment Program
The Transcranial Magnetic Stimulation Treatment Program at the University of Pennsylvania is a novel, non-invasive, outpatient-based form of brain stimulation therapy for mood disorders. TMS utilizes pulsed magnetic fields and has shown great promise as a treatment for major depression, bipolar depression, and a number of other neuropsychiatric disorders including Tourette’s syndrome, post traumatic stress disorder, pain, and migraine. To learn more or request an appointment, visit http://www.med.upenn.edu/tms/

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 12, 2015
Psychotherapy Module
Speaker: James Levenson, MD
Professor of Psychiatry, Medicine & Surgery
Vice Chair; Chair, Division of Consultation & Liaison Psychiatry
Department of Psychiatry
Virginia Commonwealth

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