Miller School Shines for Its Health Equity Research at National SLEEP Conference

University of Miami Miller School of Medicine faculty and students presented 15 poster sessions and five oral presentations at SLEEP 2023, the world’s premier clinical and scientific meeting for sleep medicine, sleep and circadian research, and sleep health.

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This was the 37th annual meeting of the Associated Professional Sleep Societies (APSS), a joint venture of the American Academy of Sleep Medicine and the Sleep Research Society, held in early June in Indianapolis.

“I presented my first abstract at the APSS meeting in 1993,” said Girardin Jean-Louis, Ph.D., professor of psychiatry and neurology, and director of the Center for Translational Sleep and Circadian Sciences (TSCS) at the Miller School. “Now, we have multiple presenters depicting different aspects of our research, whether that be community-engagement research, laboratory-based research or research based on models using national datasets, such as the National Health and Nutrition Examination Survey, National Health Interview Survey and...
TSCS focuses on research and community engagement, according to Dr. Jean-Louis, who was recently appointed distinguished professor at the University of Miami, which formally recognized the originality and consequence of his scholarly research and the way it has advanced specific areas of study and student education.

The work presented at SLEEP 2023 illustrated TSCS’s focus, looking at and engaging minoritized communities, as well as developing solution-focused interventions to help solve inequities. TSCS also develops models to better acquire sleep and circadian research data.

A Search for Solutions

“We look at different types of health disparities in South Florida in a way that will bring about solutions to reach the national mandate of health equity across all American communities,” Dr. Jean-Louis said.
This year, TSCS shared research on cardiovascular disease and brain injury as they relate to sleep.

Among the TSCS faculty presenting, Azizi Seixas, Ph.D., interim chair of the Department of Informatics and Health Data Science, presented on different types of machine learning models aimed at achieving equity in sleep and circadian science. TSCS Research Assistant Professor Judite Blanc, Ph.D., talked about different models of community engagement among multiethnic Americans.

Dr. Jean-Louis participated in a panel discussion on community-engaged models to reduce cardiovascular disease risk via sleep apnea treatment, as well as screening in barber shops, beauty salons and churches to ensure that all people have access to screening and treatment.

“We led conversations about sleep-disordered breathing in South Florida, which is new data from a National Institutes of Health Research Project Grant R01 that we brought from NYU,” Dr. Jean-Louis said. “We are beginning to look at some of the baseline data to try and answer questions such as: What are some of the environmental toxicants that may predispose some folks to sleep disordered breathing and short sleep, which may lead to cardiovascular diseases, such as high blood pressure?”

**Low Delta Causes High Blood Pressure**

Mary Carasco and her poster on “Sleep Duration and Cholesterol Levels”
Dr. Jean-Louis and TSCS colleagues are learning, for example, that many in the Black community develop high blood pressure because of reduced exposure to delta sleep.

“Those who don’t get enough deep delta sleep, don’t experience lower blood pressure during sleep, therefore their pressure is always high. As a consequence, a lot of Black folks try different treatments, but no single medication works. Our preliminary data suggests that the problem really is that they’re not sleeping enough to get into that delta deep sleep state,” he said.

SLEEP 2023 was an ideal venue to showcase TSCS’s work on the world stage, according to Dr. Jean-Louis.

“Since we left NYU a couple of years ago, we have been looking at diverse communities in South Florida to better understand some of the environmental as well as the psycho-social factors that predispose folks to having circadian dysregulations and short sleep,” he said. “Since then, TSCS has committed not only to community engagement but also to build a new lab, a circadian lab — the only lab that would focus primarily on understanding circadian abnormalities among Black and Latinx. There are circadian labs that look at the general population, but when fully operational, this lab is going to focus on what’s happening in minoritized communities to better understand the causes of circadian abnormalities and the downstream effects in terms of brain injury and cardiovascular disease.”

The data that emerges from those studies in the lab will translate to solution-focused interventions in the communities...
surrounding the Miller School, he said.

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