Trainee Grand Rounds

WCM Department of Psychiatry
Psychology CE Announcement

Core Body Temperature to Measure Circadian Disruption in Idiopathic Hypersomnia

Daniel Cabrera MD. PhD
PGY-4, General Psychiatry Resident
New York Presbyterian Weill Cornell

Live Online, Live In-Person
Wednesday, May 28th, 2025
11:00am – 12:00pm
https://weillcornell.zoom.us/j/92812036154
Meeting ID: 928 1203 6154
Password: 12345

Weill Cornell Medicine
Psychiatry

1 CE credit available to WCM Department of Psychiatry full time and voluntary faculty Psychologists, Social Workers and LMHCs, who sign in with their full name, attend the entire lecture and complete a survey which will be emailed following the completion of the lecture. Note you can join no later than 10 minutes after the start of time and must stay for the entire duration of the event for CE eligibility. The CE survey must be completed within 30 days of the lecture. Please contact wcmpsychiatryce@med.cornell.edu for additional CE information

28 March, 2025 | 11 AM - 12 PM | Live Online, Live In-Person

SPEAKER

Daniel Cabrera is a psychiatrist-in-training and physician-scientist with a background in circadian rhythm and sleep research, conducted in the Nobel Prize–winning laboratory of Dr. Michael Young at Rockefeller University. He earned his undergraduate degree in biology from Columbia University, where he investigated how developmental changes in neurons influence mechanosensation. During medical school at Weill Cornell Medical College, he led a clinical study exploring the use of portable imaging devices to detect ophthalmological pathologies. Daniel is deeply committed to leveraging emerging technologies to bridge the gap between basic science and clinical practice, with the goal of developing innovative tools for the diagnosis and treatment of psychiatric disorders.

ABSTRACT

The presentation will present and ongoing study in which we aim to use Core Body Temperature (CBT) as a marker of circadian dysfunction in 20 participants being evaluated for hypersomnia disorders undergoing attended overnight polysomnography (PSG) followed by daytime multiple sleep latency test (MSLT). With this in mind, we hypothesize that core body temperature, serving as a proxy for circadian rhythmicity can help determine if a change in circadian phase is present in patients with hypersomnia as documented by the gold-standard MSLT.

LEARNING OBJECTIVES

1. Describe the clinical features of idiopathic hypersomnia as a diagnostic entity.
2. Explain the potential of core body temperature measurement as an indicator of circadian rhythms in humans.
3. Discuss potential applications of core body temperature measurement in understanding circadian disruption in psychiatric disorders.

REFERENCES

1. Aschoff, J. (1983). Circadian control of body temperature. *Journal of Thermal Biology, 8*(1–2), 143–147. https://doi.org/10.1016/0306-4565(83)90094-3
2. Tomoda, A., Joudoi, T., Kawatani, J., Ohmura, T., Hamada, A., Tonooka, S., & Miike, T. (2003). Case Study: Differences in HumanPer2 Gene Expression, Body Temperature, Cortisol, and Melatonin Parameters in Remission and Hypersomnia in a Patient with Recurrent Hypersomnia. *Chronobiology International, 20*(5), 893–900. https://doi.org/10.1081/cbi-120024213
3. Lippert, J., Halfter, H., Heidbreder, A., Röhr, D., Gess, B., Boentert, M., Osada, N., & Young, P. (2014). Altered Dynamics in the Circadian Oscillation of Clock Genes in Dermal Fibroblasts of Patients Suffering from Idiopathic Hypersomnia. *PLoS ONE, 9*(1), e85255. https://doi.org/10.1371/journal.pone.0085255

Trainee Grand Rounds

WCM Department of Psychiatry
Psychology CE Announcement
(cont).

Weill Cornell Medicine
Psychiatry

Detecting suicide risk in young adults: A machine learning-based analysis of nonverbal behaviors exhibited during suicide assessments

Ilana Gratch, M.S., M.Phil.
Psychology Intern, NewYork-Presbyterian/Weill Cornell Medicine
Ph.D. Candidate in Clinical Psychology, Teachers College, Columbia University

Live Online, Live In-Person
Wednesday, May 28th, 2025
11:00am – 12:00pm
https://weillcornell.zoom.us/j/92812036154
Meeting ID: 928 1203 6154
Password: 12345

1 CE credit available to WCM Department of Psychiatry full time and voluntary faculty Psychologists, Social Workers and LMHCs, who sign in with their full name, attend the entire lecture and complete a survey which will be emailed following the completion of the lecture. Note you can join no later than 10 minutes after the start of time and must stay for the entire duration of the event for CE eligibility. The CE survey must be completed within 30 days of the lecture. Please contact wcmpsychiatryce@med.cornell.edu for additional CE information

28 March, 2025 | 11 AM - 12 PM | Live Online, Live In-Person

SPEAKER

Ilana Gratch is a PhD candidate in clinical psychology at Teachers College, Columbia University, currently completing her doctoral internship at NewYork-Presbyterian/Weill Cornell Medicine. Her research focuses on the assessment of suicidal thoughts and behaviors across the lifespan and has been funded by the National Institute of Mental Health, the American Psychological Foundation, and Columbia University. She has completed fellowships with the International Psychoanalytical Association and the American Psychoanalytic Association. She will complete her postdoctoral clinical fellowship in the maternal-infant psychiatry program at Weill Cornell Medicine.

ABSTRACT

Suicide is a leading cause of death among young adults in the United States. The majority of patients who die by suicide deny any suicidal ideation in their last conversation with a mental health provider. Despite this, suicide assessments have historically privileged verbal report by the patient. Nonverbal behaviors convey enormous amounts of affective and interpersonal information, and recent advances in computational science enable their objective and efficient characterization. Using automated coding, we test whether facial and head behavior exhibited during a widely used suicide assessment can be used to improve suicide risk detection. Facial action units, head pose, and eye and mouth opening of young adult participants (N=66) and their clinical interviewers were extracted from the first three minutes of a face-to-face video-recorded administration of the Columbia Suicide Severity Rating Scale using the Python-Based Automated Facial Affect Recognition (PyAFAR) software. Nonverbal behaviors of participants, and particularly their clinical interviewers, differentiated suicidal vs. nonsuicidal young adults. Interviewer nonverbal behaviors were also associated with participants' suicidal thoughts and behaviors three months later, while traditionally relied upon measures were not. The present study demonstrates the importance of attending to nonverbal channels of communication in suicide assessments, especially those of the clinical interviewer.

LEARNING OBJECTIVES

1. Describe the challenges associated with suicide risk assessment and detection in clinical practice.
2. Explain how nonverbal behaviors can be objectively and efficiently measured during clinical interactions.
3. Identify specific nonverbal behaviors that may be associated with suicidality.

REFERENCES

1. Archinard, M., Haynal-Reymond, V., & Heller, M. (2000). Doctor's and patients' facial expressions and suicide reattempt risk assessment. *Journal of Psychiatric Research, 34*(3), 261–262. https://doi.org/10.1016/s0022-3956(00)00011-x
2. Gratch, I., Choo, T., Galfalvy, H., Keilp, J. G., Itzhaky, L., Mann, J. J., Oquendo, M. A., & Stanley, B. (2020). Detecting suicidal thoughts: The power of ecological momentary assessment. *Depression and Anxiety, 38*(1), 8–16. https://doi.org/10.1002/da.23043
3. PyAFAR: Python-based Automated Facial Action Recognition library for use in Infants and Adults. (n.d.). https://pyafar.org/