From: <u>Hudes, Estie</u>
Cc: <u>Hudes, Estie</u>

Subject: Joint CAPS Methods Core / VP Program seminar: Fri 11/6/2020, 8am - 10am. Dr Santa Maria & Dr. Padhye,

University of Texas: "Just-in-Time Adaptive Interventions for Risk Prevention Among Youth Experiencing

Homelessness"

**Date:** Tuesday, October 6, 2020 11:12:55 AM

Dear Methods Core seminar participants,

Hope everyone is managing OK with distance working and the pandemic.

Our second seminar in 2020, and the very first one in the times of COVID-19, will take place in one month. This is a joint CAPS Methods Core & Visiting Professors Program seminar. We are very excited to have a graduate of the VP program presenting to us, about the important subject of EMI.

Title: Real World Utilization of Just-in-Time Adaptive Interventions for Risk

Prevention

Among Youth Experiencing Homelessness: From Implementation to

Evaluation

Presenters: Diane Santa Maria, DrPH, RN, PHNA-BC, FSAHM, FAAN

Associate Professor and Dean at the Cizik School of Nursing, University of Texas Health Science Center at Houston (UTHealth)

And Nikhil Padhye, PhD

Professor, Biostatistician, Cizik School of Nursing at UTHealth



<u>Date</u>: Friday November 6, 2020

<u>Time</u>: 8:00 am - 10:00 am Pacific time (10 am - 12 noon Central time)

<u>Location</u>: Register in advance for this meeting:

**Zoom Meeting Registration** 

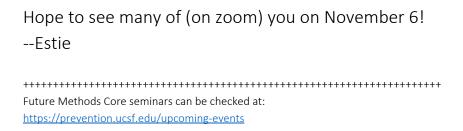
After registering, you will receive a confirmation email containing information about joining the meeting.

Abstract: People experiencing homelessness have higher rates of HIV than those who are stably housed. Mental health needs, substance use problems, and issues unique to homelessness such as lack of shelter and transiency need to be considered with regard to HIV prevention. To date, HIV prevention interventions for young adults experiencing homelessness (YEH) have not specifically addressed modifiable realtime factors such as stress, sexual or drug use urge, or substance use or been delivered at the time of heightened risk. Using real-time, personalized HIV prevention messages may provide more timely information and produce more motivation for behavioral change than those seen in prior interventions. Therefore, this pilot study tested the feasibility and initial efficacy of an innovative just-in-time adaptive intervention (JITAI) that targeted real-time predictors of HIV risk behaviors and provided behavioral feedback and goal attainment information. The intervention consisted of brief messages delivered via smartphone over 6 weeks in response to pre-identified predictors that were assessed using Ecological Momentary Assessments. A randomized attention control design was used with YEH (N=96) recruited from shelters and drop-in centers in May, 2019. Bayesian hierarchical regression models were used to assess intervention effects on sexual intercourse, drug use, alcohol use, and their corresponding urges. Sexual intercourse, drug use, and alcohol use reduced over time in both groups. The odds of drug use reduced by a factor of 13.8 over 6 weeks in the intervention group relative to the control group. Sensitivity to missing responses were analyzed with a tipping-point approach that indicated that the intervention effect on drug use was fairly robust even if missing data were non-ignorable. All urges reduced over time in both groups. Lower odds of urge for sex were found in the intervention group indicating reduced urge for sex in the intervention group over the duration of the study. Stress experienced now and yesterday also reduced over time in both groups. These findings suggest promising intervention effects that should be further explored in a larger randomized trial to determine if there are reductions in HIV risk behaviors that are sustained over time.

Short bios: Dr. Santa Maria was appointed as Dean of the Cizik School of Nursing at the University of Texas Health Science Center at Houston Sept 1, 2020. She earned her BSN from the Ohio State University and MSN in Public Health Nursing from the Case Western Reserve University. She joined the University of Texas Health Science Center Cizik School of Nursing (UTHealth) in 2009 and earned her DrPH in Health Promotion and Behavioral Science from UTHealth School of Public Health in 2013.

Dr. Santa Maria was the PARTNERS Faculty Research Scholar and was appointed as the Dorothy T. Nicholson Distinguished Professor in 2016 and John P. McGovern Distinguished Professor in 2018. Santa Maria is an adjunct faculty member in the Center for Health Promotion and Research at UTHealth School of Public Health, and was a Visiting Professor at the University of California San Francisco Center for AIDS Prevention Studies from 2016-18. She has extensive experience in public health nursing particularly concentrated on HIV/STI/pregnancy prevention and adolescent health. Her current randomized trial, funded by NINR, is testing the effects of a nurse case management HIV prevention intervention among youth experiencing homelessness (YEH) and the barriers, facilitators, acceptance of point-of-contact PrEP adherence tests, and adherence levels of PrEP among youth who identify as LGBTQ. A supplement will also allow her to assess for SARS-CoV-2 antibodies and effects longitudinally. Dr. Santa Maria is a founding member of a national Homeless Youth Research Collaborative (www.realyst.org) that is dedicated to promoting health equity among at-risk youth and YEH. She draws on her research to inform education, advocacy, and health policy efforts. She has authored several position statements by the Society for Adolescent Health and Medicine advocating for improvements in sexual and reproductive healthcare services especially for adolescent males and for increased access to PrEP and long-acting reversible contraceptives for all youth. Prior to her academic career, Dr. Santa Maria worked as a medical-surgical nurse, health educator, Indian Health Services director for Community Health Nursing, and began her nursing career as a Peace Corps Volunteer.

<u>Dr. Padhye</u> is a Professor and Biostatistician at the Cizik School of Nursing at The University of Texas Health Science Center at Houston. He received his Bachelor of Technology degree from the Indian Institute of Technology in Mumbai and his MA and PhD degrees in Physics were conferred by The University of Texas at Austin. His postdoctoral work involved statistical analysis of solar wind data collected by satellites, which morphed into the time series analysis of biological data when he started in his present occupation. Since then, Dr. Padhye has diversified his statistical interests and collaborated with many research teams at the Texas Medical Center. At present, he is the principal investigator of a study that is exploring the linkage of pressure injuries to age-related reduction in the complexity of skin temperatures. He is a co-investigator with Dr. Santa Maria on her study of the Just-In-Time Adaptive Intervention and he is also collaborating with her on the Nurse Case Management intervention study that is funded by NIH/NINR.



Estie Hudes, PhD MPH (pronouns: she/her/hers)

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