



Meet the Speakers: QSP Flash Talks

February 12, 2025 @ 12:00pm

Duncan Building at Butler Hospital or via Zoom

Register: <https://bit.ly/40loXtQ>

Gemma Wallace, PhD, Brown University, T32 Postdoctoral Research Fellow

Uncovering person-specific risk patterns in intensive longitudinal data using Dynamic Structural Equation Modeling

Intensive longitudinal methods that enable studying mental health in daily life hold great promise for improving timely and personalized interventions. Recent advancements in intensive longitudinal modeling enable exploring individuals' unique patterns of risk and resiliency for mental health concerns. Using ecological momentary assessment data from adult psychiatric inpatients, this talk will demonstrate the use of dynamic structural equation modeling to uncover both group-level and person-specific patterns of risk for suicidal ideation. These methods are likely to be relevant for researchers interested in precision mental health approaches.



Zachary Kunicki, PhD, Brown University, Assistant Professor

Unpacking the Trends in Normative Cognitive Aging Across Two Decades

I will show results of "normative" cognitive change among older adults living in the United States over 22 years of follow-up. These analyses incorporate complex survey weights, giving the results the potential to be nationally representative. Next steps, including multilevel confirmatory factor analysis, will be discussed.



Jennie Min, PhD, Brown University, Postdoctoral Research Fellow

Momentary association between negative affect and alcohol urge in patients on methadone maintenance treatment

Patients with opioid use disorder undergoing methadone maintenance treatment (MMT) often continue to experience urge to use opioids, which can challenge the recovery process. Particularly, negative emotions have been identified as significant risk factor associated with opioid urges. This talk leverages ecological momentary assessment (EMA) data collected from individuals in early recovery through MMT to investigate both person-level and momentary relationships between negative emotions and opioid cravings. The talk will use multilevel modeling to disentangle the between- and within-person associations between negative emotion and opioid urge.



Aleks Karnick, PhD, Brown University, F32 Postdoctoral Fellow

Mapping post-discharge suicide risk: Assessing emotional and affective risk trajectories in adolescent psychiatric inpatients

We used dynamic structural equation modelling (DSEM) mediation to assess indirect effects of parameters of momentary NA and ER on the relationship between baseline STBs and after 3 weeks in a population of adolescents following inpatient discharge. Objectives: To plainly describe how to develop meaningful DSEM parameters in intensive longitudinal data. To demonstrate how DSEM parameters can be used as mediators at the between level for data that includes pre- and post-study measurements.



Rich Jones, PhD, Brown University, Professor

Measuring DIF: Historical Perspectives and New Frontiers in Effect Size Estimation

Effect size measures are key to distinguishing meaningful DIF from statistical artifacts. This talk traces the evolution of DIF effect size methods, from Mantel-Haenszel and logistic regression to IRT-based approaches, highlighting their strengths and limitations. I will introduce new methods that enhance interpretability and measurement invariance, improving the validity of cross-group comparisons. Empirical examples will illustrate these advancements in practice.

