

## Making Sense of Missing Sessions: Attendance Patterns in PTSD and Substance Use Disorder Treatments

### **Abstract**

The following dissertation study utilized data gathered from a NIDA funded treatment efficacy study of co-occurring posttraumatic stress and substance use disorders (R01DA10843; PI: Denise A. Hien, PhD; Ruglass et al., 2017) in order to analyze treatment attendance patterns and consider potential implications for patient-treatment matching. Participants meeting criteria for both PTSD and Substance Use Disorders (SUD) (N=110) were randomized to 12 sessions of Concurrent Treatment of PTSD and SUD using Prolonged Exposure (COPE), Relapse Prevention Therapy (RPT) or a delayed treatment control condition referred to as active monitoring control group (AMCG). Eighty-two participants were randomized to the two active psychotherapy treatments (COPE: n=39, RPT: n=43) and were the subsample used in this secondary analysis. Using Latent Growth Mixture Modeling (Muthén & Muthén, 2000), three distinct classes of attendance comprised the model of best fit: treatment *completers*, treatment *titrators* and treatment *droppers*. Diagnostic variables, but not demographic variables were associated with treatment attendance patterns. Specifically, number of trauma exposures and the presence of co-occurring Major Depressive Disorder (MDD) were associated with attendance patterns. *Titrators* were more likely to have current MDD than *completers*. The negative affect and cognitions that characterize MDD may make attending treatment sessions even more challenging for this subset of treatment seekers with PTSD-SUD. In the initial treatment phase (baseline – session 4), subjective post-traumatic stress symptom severity decreased more quickly for *titrators* than for *completers*. *Titrators* were more likely to have multiple traumas compared to those

subjects who were *droppers*, the participants who attended the fewest overall sessions.

There were no significant differences within the initial treatment phase in terms of substance use among *completers* and *titrators*; frequency or type of substance use was not predictive of attendance class in this sample of those with PTSD-SUD. The distribution of attendance class patterns did not vary across treatment type.

Understanding the heterogeneity of those with PTSD-SUD and the links between variables that describe this diversity and attendance irregularities may improve treatment engagement and effectiveness on an individual and programmatic level. An examination of interaction effects between patient characteristics and treatment type with this population may allow for greater individualization in regards to treatment matching, making effective use of the identification of subgroupings and their differential responses to therapeutic intervention (Project MATCH Research Group, 1997; Hien et al., 2012). A clarified relationship between treatment attendance patterns and outcomes may offer support for treatment delivery models of increased flexibility.

*Keywords:* posttraumatic stress disorder, substance dependence, attendance, dropout, attrition, psychotherapy, prolonged exposure