Mindfulness for Alcohol Abusing Offenders
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Statistical Analysis Plan: Mindfulness for Alcohol Abusing Offenders
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Specific Aim #1: Analysis: To compare the effectiveness of the mindfulness-based and standard relapse prevention treatment, we will perform several types of analyses. One analysis will compare group means on the rates of institutional infractions (including failed drug tests) by participants before and after treatment, while incarcerated. A second analysis will compare change from pre-treatment to post-treatment for several variables, including alcohol craving, depression, psychological well-being, posttraumatic stress disorder (PTSD) symptomatology, and mindfulness. The third analysis will use survival analyses to assess the proportion of participants who recidivate during the follow-up period. Recidivism is defined as any re-offending, re-arrest, or parole violation. The mean survival times will be compared between groups to determine if one group is characterized by earlier relapse or recidivism than the other. Behavioral data will be analyzed according to the published guidelines for each test. For self-report measures, we will compute total scores as well as relevant subscales. To compare pre-intervention to post-intervention scores across treatment groups, we will perform paired sample *t*-tests for each measure.

Specific Aim 2: Analysis: To identify psychological and neurobiological mechanisms of behavior change, we will examine outcomes on several psychological assessments described above in conjunction with MRI measures pre- and post-intervention. The primary MRI assessment includes measures of task-related functional activity and network connectivity during an alcohol craving task. This technique is highly sensitive to individual differences and group outcomes. These analyses will focus on basic mixed (within-between) model comparisons examining group differences on within-subjects task-related functional activity change over time. Changes in functional activity and network connectivity during the alcohol craving task will be subsequently compared via Pearson Correlation coefficients to treatment related changes in the alcohol craving, depression, psychological well-being, PTSD symptomatology, and mindfulness variables outlined above.