Adjunctive Triple Chronotherapy in the Acute Treatment of Depression and Suicidality

Nicholas Coombs, M.S. * School of Public and Community Health Sciences * University of Montana
nicholas.coombs@umontana.edu

**Background**

- Unipolar depression has a serious negative impact on a person’s quality of life and is associated with increased risk of suicide.
- Although evidence-based treatments for the management of depression exist, social stigma, misperceptions of effectiveness in self-sustained management, and side effects to antidepressant medication all pose treatment barriers.
- One treatment option that has worked around these barriers (TCT) simultaneously employs a therapeutic manipulation of *sleep-wake cycles* and *bright light therapy*.

**Inclusion Criteria**

- Adults with moderate to severe unipolar depression
- Have resided in Montana for entire adult life

**Methods**

- Prior to beginning the TCT intervention, participants will be evaluated by their levels of depression and positive circuit stimulation in brain activity.
- These measurements will persist through duration and follow up of treatment and be compared to levels at onset.
- A sample of control participants within the same population will be compared to the intervention group at subsequent time periods.

**Preliminary Results**

- 31 participants enrolled; 29 participants completed intervention.
  - 26 (84%) experienced a response to TCT (50% reduction in depression score).
  - 24 (77%) experienced remission based on Hamilton Depression Scale (HAMD-17).

**Conclusion**

- Suicide rates have steadily increased over the past twenty years in the United States with even greater increases in Montana, a state with one of the highest rates of suicide.
- Due to Montana’s elevated, vast, rural geographic setting and the inability to control for long, dark winters, individuals are susceptible to countless overlapping mental health issues.
- Testing of TCT has shown it to be a safe and feasible adjunctive treatment in managing depression and suicidality with no disconcerting side effects, contrary to most medication.
- Antidepressant medication may take months to produce a sustained effect; TCT is administered over a short, five day period.

**References**


**Figure 1. Antidepressant response.** Figure above: Description during TCT intervention. Figure below: Longitudinal description at 7-day and 30-day follow up.