

Sahaj Samadhi Meditation may improve depressive symptoms in Late-Life Depression: a preliminary analysis of an ongoing RCT study.



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MOTIVATION

- Affecting 3-5% of older Canadians, Late Life Depression (LLD) is associated with a significant socioeconomic cost
- However, the response rates to standard antidepressant medical therapy remain quite low (46-60%)¹
- Various mind-body therapies are being increasingly embraced by patients as they are considered safe and potentially effective, yet little is known regarding their effectiveness in improving LLD symptoms.
- Automatic Self Transcending Meditation (ASTM), has shown antidepressant effects in studies on adult populations but little is known regarding its effectiveness in treating LLD
- Here, we are conducting a single-centre, single-blind, longitudinal randomized controlled naturalistic trial to determine if Sahaj Samadhi Meditation (SSM), a kind of ASTM, improves depressed mood in patients with Late Life Depression (LLD)

HYPOTHESIS

We hypothesize that Sahaj Samadhi Meditation (SSM) instruction and practice leads to significant improvements in the severity of Late Life Depression (LLD) as compared to treatment as usual (TAU). Additionally such benefits might extend to those with melancholic and late onset depression subtypes.

METHODS



Example of a Sahaj Samadhi Meditation class as put on by the Art of Living Foundation

- We are conducting a single-centre, single-blind, longitudinal, randomized controlled naturalistic trial comparing SSM plus TAU vs. TAU alone in patients with LLD. Participants from primary, secondary and tertiary care over the age of 60 with a diagnosis of LLD are randomized either to SSM or TAU alone, with treating physicians and study raters blinded to allocation
- Participants in the Sahaj Samadhi meditation group, receive training by certified teachers from the Art of Living Foundation for four consecutive days (120 minutes each) in the first week, followed by 60 minute follow-up sessions in each of the 11 subsequent weeks²

METHODS (CONT'D)

SAHAJ SAMADHI MEDITATION

- Sahaj Samadhi Meditation (SSM) is a form of Automatic Self Transcending Meditation (ASTM) practiced and taught by the Art of Living Foundation
- It utilizes a specific sound value (called a *mantra*) to achieve a deep relaxation in practitioners by drawing focus and quietening the conscious mind
- Participants in the SSM group are given a personal mantra in the initial training sessions and encouraged to practice twice a day over the remaining weeks
- Participants in the TAU alone group are offered SSM training following twelve weeks of participation in the study



Meditation was modified for the participants to allow them to sit comfortably on chairs (Not actual participants pictured above)

SELECTION OF SUBJECTS

- Participants are eligible for inclusions if they are older than 60 and have a diagnosis of Major Depressive Disorder (MDD) rated as mild to moderate using a 17-item Hamilton Depression Rating Scale (HAMD-17) score of 8 to 22
- Additionally, participants should be at a stable dose (at least 4 weeks) of any antidepressants, have sufficient hearing to follow verbal instructions, and be able to sit comfortably for 45 minutes
- Exclusion criteria include current practice of a formal meditation technique, presence of dementia, significant cardiovascular or neurological disease, recent psychoses, use of tricyclic, MAOI, or SNRI antidepressants, and participation in other similar studies

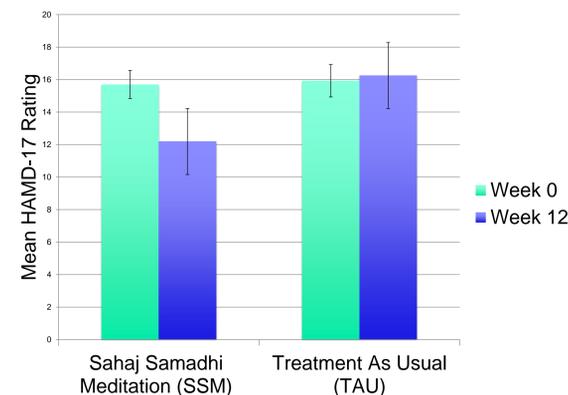
DATA COLLECTION AND ANALYSIS

- Preliminary data for 25 participants, using the Hamilton Depression Rating Scale (HAMD-17) was analyzed at baseline (week 0) and week 12 to assess change in late life Depression Severity. Analysis of variance (ANOVA) was conducted via SPSS software.
- Preliminary subanalysis for the 25 participants, was also performed via HAMD-6 scores, to assess change in melancholic depression symptoms, as obtained from HAMD-6 scale. HAMD-6 scale is a validated research tool to assess for changes in melancholic depression.³ ANOVA was conducted via SPSS software.
- Differences in HAMD-17 scores for early onset (<50) versus late onset (>50) patients with late life depression, was also analyzed using ANOVA via SPSS for preliminary data.

RESULTS

SSM REDUCES DEPRESSION SEVERITY

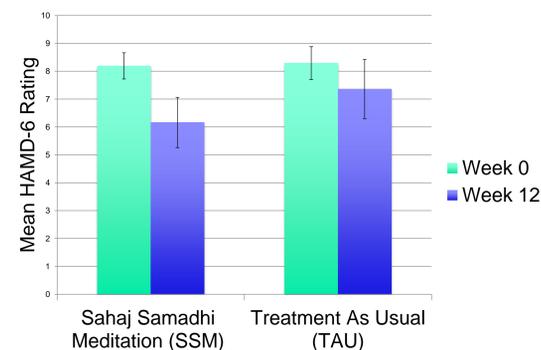
- Currently, 25 participants (SSM = 11, TAU = 14) have completed 12 weeks of participation in the study, including four assessment visits
- Mean HAM-D 17 scores at baseline were 15.70 (\pm 0.86) and declined to 12.19 (\pm 1.00) at Week 12 ($p < 0.001$) for SSM treatment group.
- TAU group scores did not show a similar significant decline ($p > 0.05$).



Graph showing improvement in depression severity over 12 weeks in the SSM group compared to the TAU group as measured by the HAMD-17

SSM REDUCES MELANCHOLIC DEPRESSION SEVERITY

- Sub-group analysis for melancholic depression symptoms was performed for 25 participant preliminary data (SSM = 11, TAU = 14)
- Mean HAMD-6 scores at baseline were 8.19 (\pm 0.47) and declined to 6.16 (\pm 0.59) at Week 12 ($p < 0.001$) for SSM treatment group.
- TAU group scores did not show a similar significant decline. ($p > 0.05$)



Graph showing improvement in Melancholic Depression severity over 12 weeks in the SSM group compared to the TAU group as measured by the HAMD-6

Early versus Late Onset Depression

- There was no difference in responsiveness between individual with early (age of onset < 50 yrs) or late-onset (>50 yrs) depression, $F(27)=0.191$, $p = 0.665$.

DISCUSSION

- Our preliminary results indicate significant beneficial effects of SSM on depression severity.
- Particularly promising, are significant benefits noted for melancholic depression. This suggests that the beneficial effects of SSM have a neurobiological basis rather than due to the inherent group effects of treatment delivery. Such effects will need to be confirmed in larger sample sizes as well as subsequent studies comparing with an active control.
- Subgroup analysis of data revealed no significant differences of SSM between early and late onset depression. This suggests that the benefit of SSM extends even to those who may have significant vascular burden, as expected in those with late onset depression.

CONCLUSIONS

- Our preliminary results indicate that SSM leads to a significant improvement in measures of LLD severity as indicated by HAMD-17 and HAMD-6 scores.
- If SSM continues to show effectiveness, it could be readily adapted into routine clinical care as an adjunct treatment and delivered in a range of settings at relatively little cost to patients or the healthcare system.

ACKNOWLEDGEMENTS

- This research is made possible with support from Lawson Health Research Institute, the Academic Medical Organization of Southwestern Ontario (AMOSO), and the Schulich Research Opportunities Program (SROP)



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