RBD AS A MODEL TO ASSESS THE RELATIONSHIP BETWEEN REM SLEEP BREAKDOWN AND EMOTION DYSREGULATION

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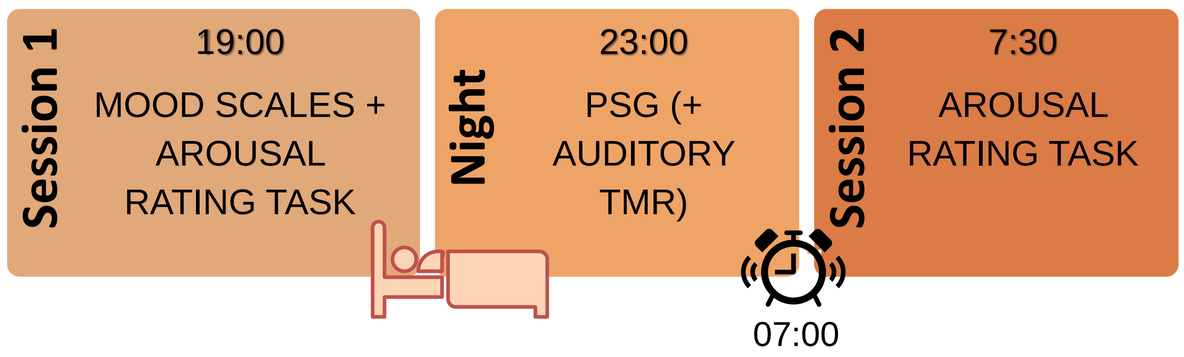
OBJECTIVES / INTRODUCTION

- We sleep to forget the emotional tone yet sleep to remember the tagged memory of that episode.
- The unique neurobiological state of Rapid Eye Movement (REM) sleep supports decoupling of emotion from memory.
- Targeted Memory Reactivation (TMR): tool to study the mechanisms of memory reactivation by biasing this, otherwise spontaneous, process towards the memories targeted by the procedure.
- REM sleep including several phasic events and awakenings interferes with the overnight resolution of emotional distress.
- REM sleep breakdown is a core feature of REM Behavior Disorder (RBD).
- A high prevalence of emotion dysregulation symptoms in RBD patients has been reported by questionnaires-based studies.

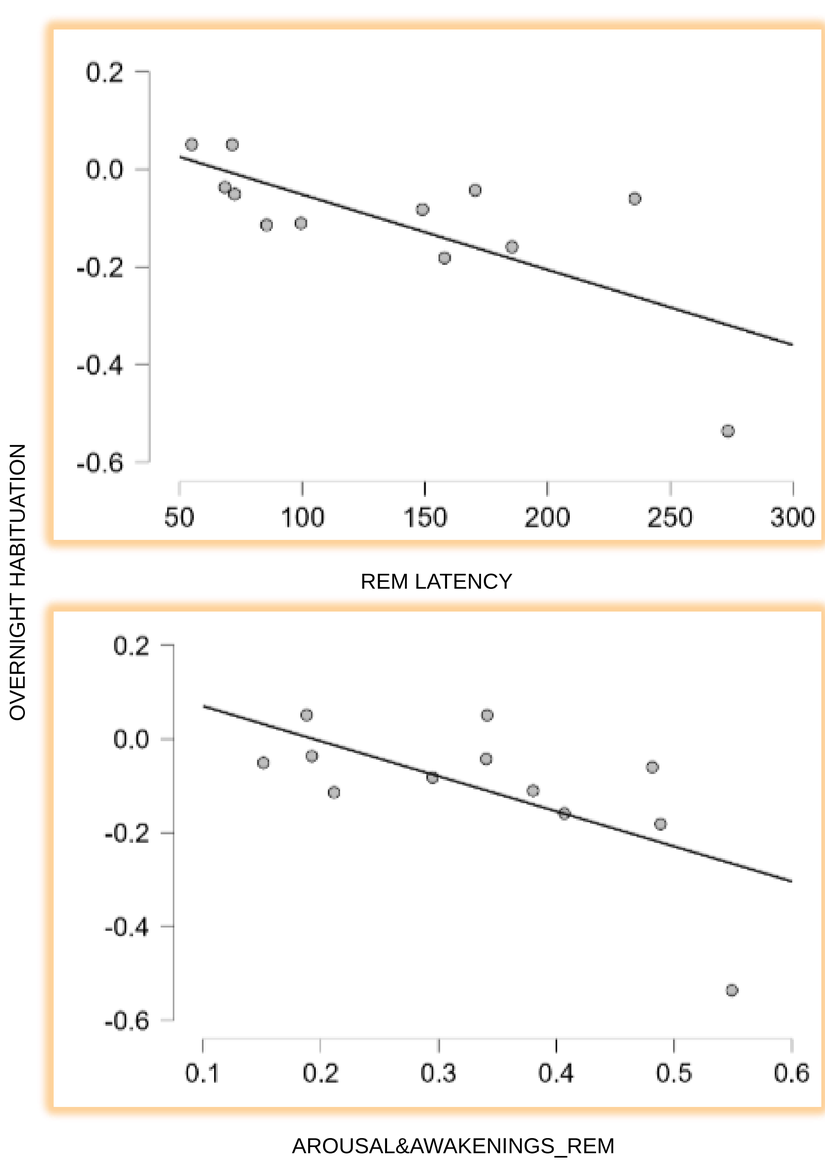
The **overall objective of this project** is to assess the relationship between REM sleep and the overnight modulation of emotional reactivity in a sample of older adults' healthy controls and RBD.

METHODS



RESULTS

- 19 HC (TMR group mean age 60±6.63, 5F; NO TMR group mean age 62.4±6.91, 7F) and 4 RBD (NO TMR group mean age 67.7±2.06, 1F) have been enrolled.
- No significant effect of TMR on the overnight modulation of emotional reactivity was observed between uncued and cued negative stimuli (uncued mean ± sd: -0.22 ±1.27, cued mean ± sd: -0.16 ± 1.29; p-value 0.58).
- Overnight habituation is hindered by arousals and awakenings during REM ($r = -0.68$; $p < 0.05$).
- REM latency negatively correlated with the overnight habituation ($r = -0.71$; $p < 0.05$).
- REM density negatively correlated with the overnight habituation in NO TMR HC group.



CONCLUSION

Our preliminary results highlight the main role of REM sleep in emotional processing.

This study may provide an insight on the relationship between iRBD and the insurgence of daytime mood impairment by investigating the role of REM sleep in modulating daytime response to emotional stimuli.

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