



INTRODUCTION

- Transcranial direct current stimulation (tDCS) has been tested as an add-on tool to boost working memory training (WMT). However, few studies have combined WMT with tDCS in older adults (e.g., Jones et al., 2015; Park et al., 2013; Nilsson et al., 2017).
- This study aimed to assess the effects of WMT coupled with tDCS on transfer measures of working memory and reasoning, immediately after five days of intervention and in a 15 days follow-up.

METHOD

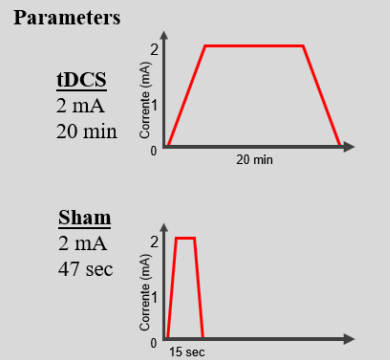
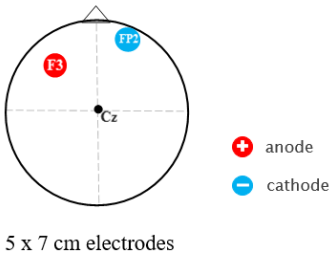
Participants

54 healthy old adults ($M_{age} = 68.6$; 32F)

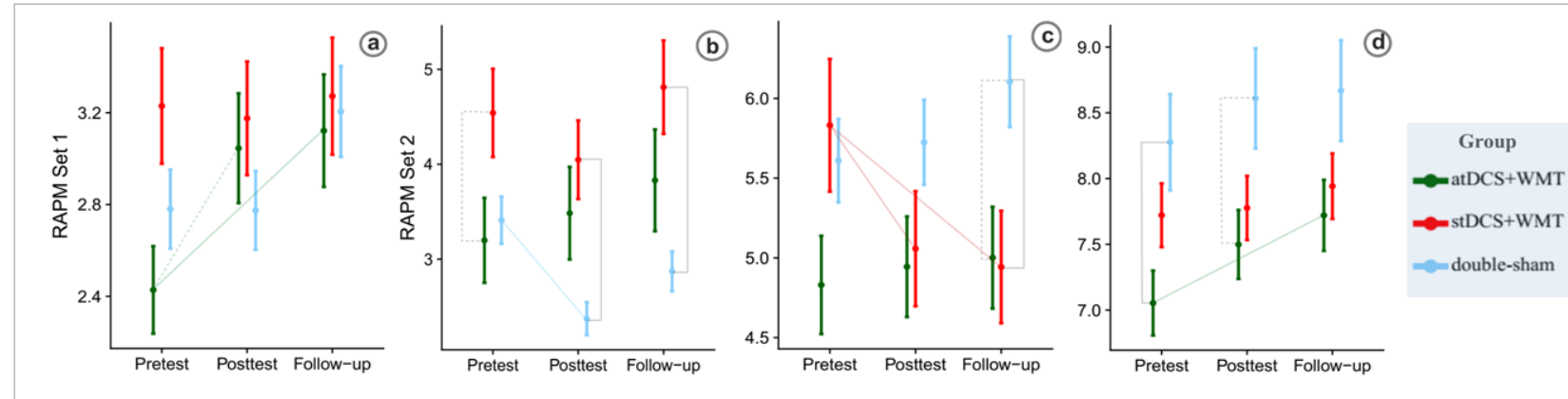
N	Condition
18	Active tDCS + WMT
18	Sham tDCS + WMT
18	sham tDCS + sham training

tDCS montage

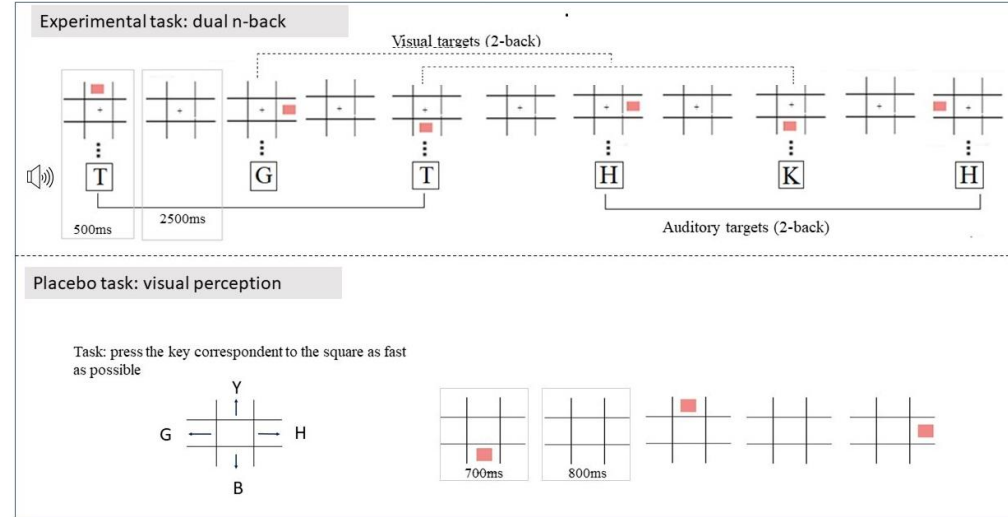
EKG System 10/20



RESULTS



Trained tasks



REFERENCES

- Jones et al. (2015). Longitudinal Neurostimulation in Older Adults Improves Working Memory. *PLoS ONE*, 10(4).
- Park et al. (2013). Long-term effects of transcranial direct current stimulation combined with computer-assisted cognitive training in healthy older adults. *Neuroreport*, 25, 122–126.
- Nilsson et al. (2017). Direct-Current Stimulation Does Little to Improve the Outcome of Working Memory Training in Older Adults. *Psychological Science*, 28(7), 907–920.

DISCUSSION

- We performed an analysis of WMT transfer effects on digit span and Raven's Advanced Progressive Matrices (RAPM).
- The atDCS+WMT group displayed a significant improvement in fluid intelligence and short-term memory, which is observed especially at follow-up.
- This work show evidence that WMT associated with atDCS may yield transfer effects to other cognitive domains in healthy older adults.