

# Acute mental stress does not influence descending inhibitory pain modulation in women with myofascial temporomandibular disorder and healthy controls

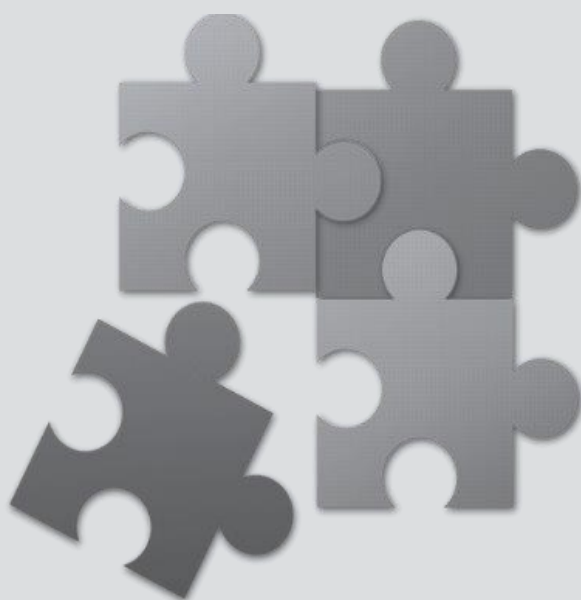
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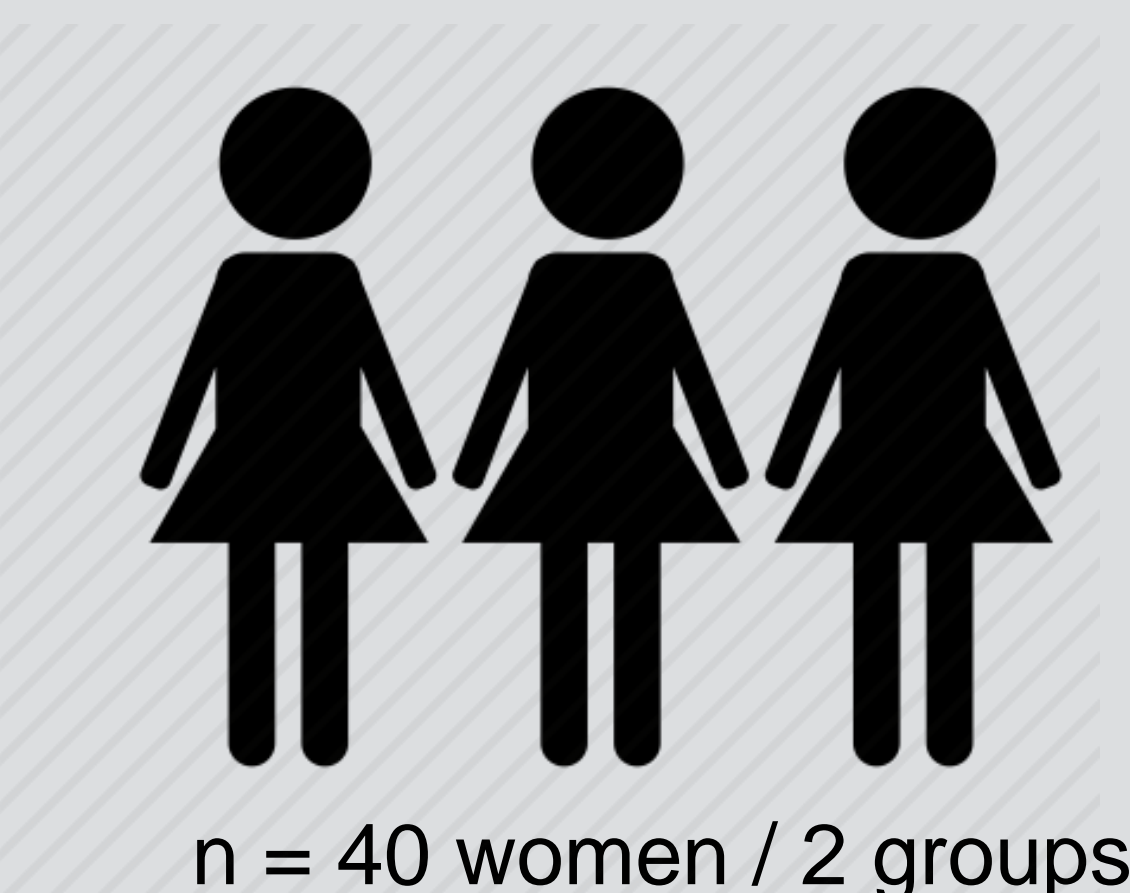


## Objective

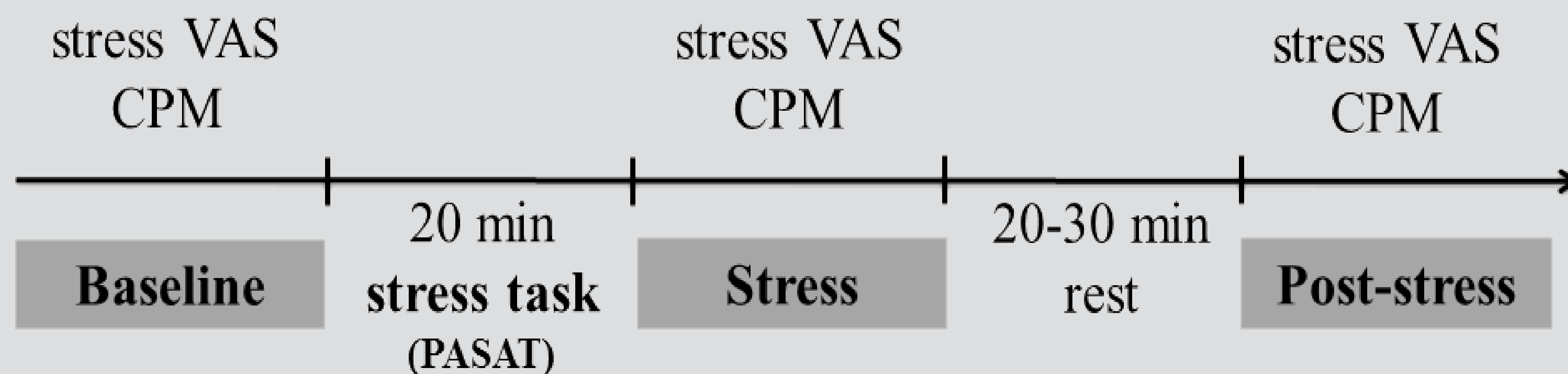
To assess the effects of experimental psychological stress on the conditioned pain modulation (CPM) efficiency of myofascial temporomandibular disorder (TMD) patients and healthy controls.



## Methods



- 1 - Healthy participants (29.4 yrs.)
- 2 - Myofascial TMD (RDC/TMD) (30.1 yrs.)



PASAT = Paced Auditory Serial Addition Test

### CPM



**Test Stimulus (TS)**  
Pressure Pain Threshold (PPT)



**Conditioning Stimulus (CS)**  
Immersion of the participant's hand in hot water ( $46.5 \pm 2^\circ\text{C}$ ) for 1 min

$$\text{CPM} = \text{PPT}_1 - \text{PPT}_2$$

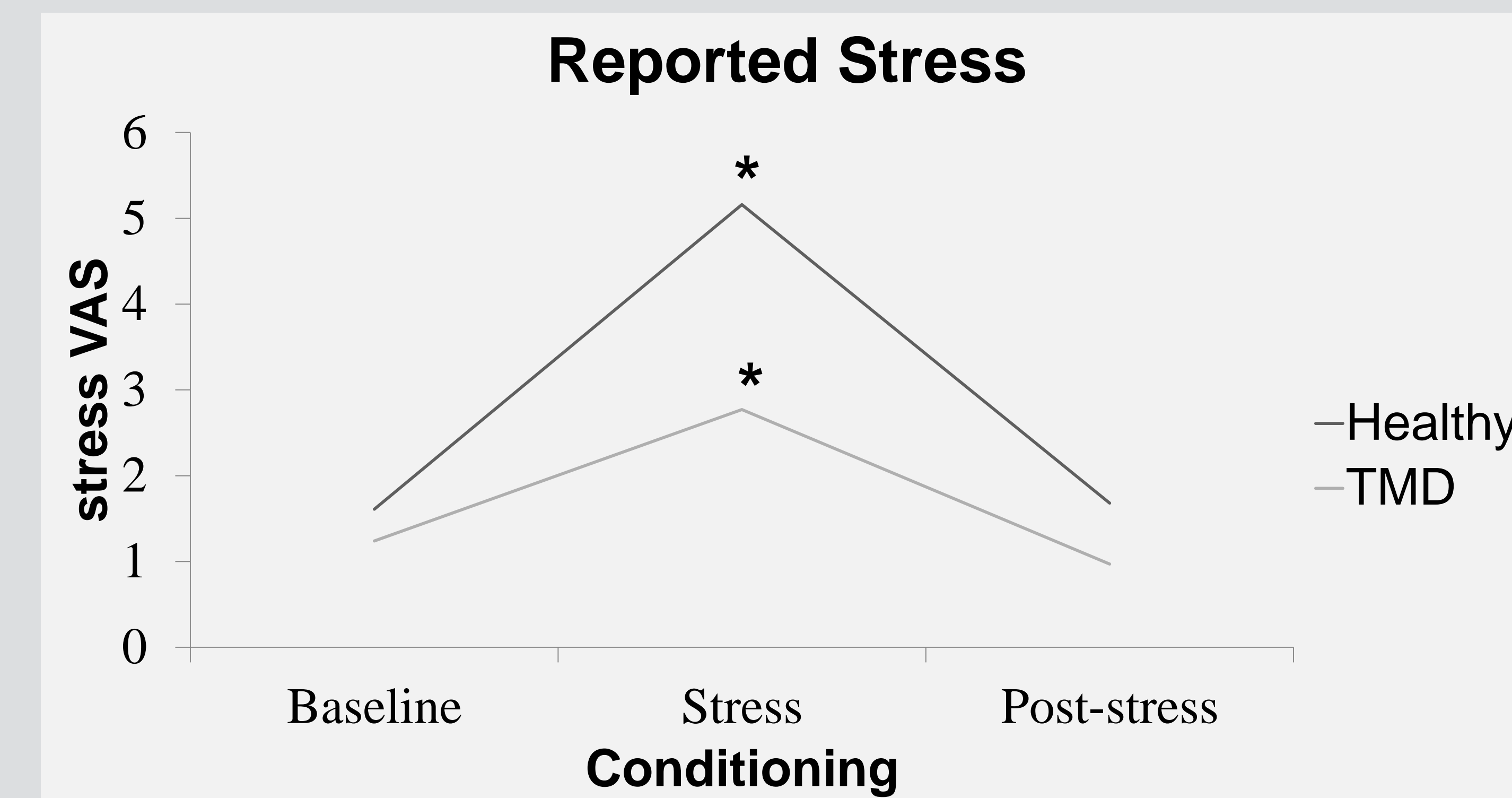
Two-way ANOVA  
( $\alpha = 5\%$ )



Support:



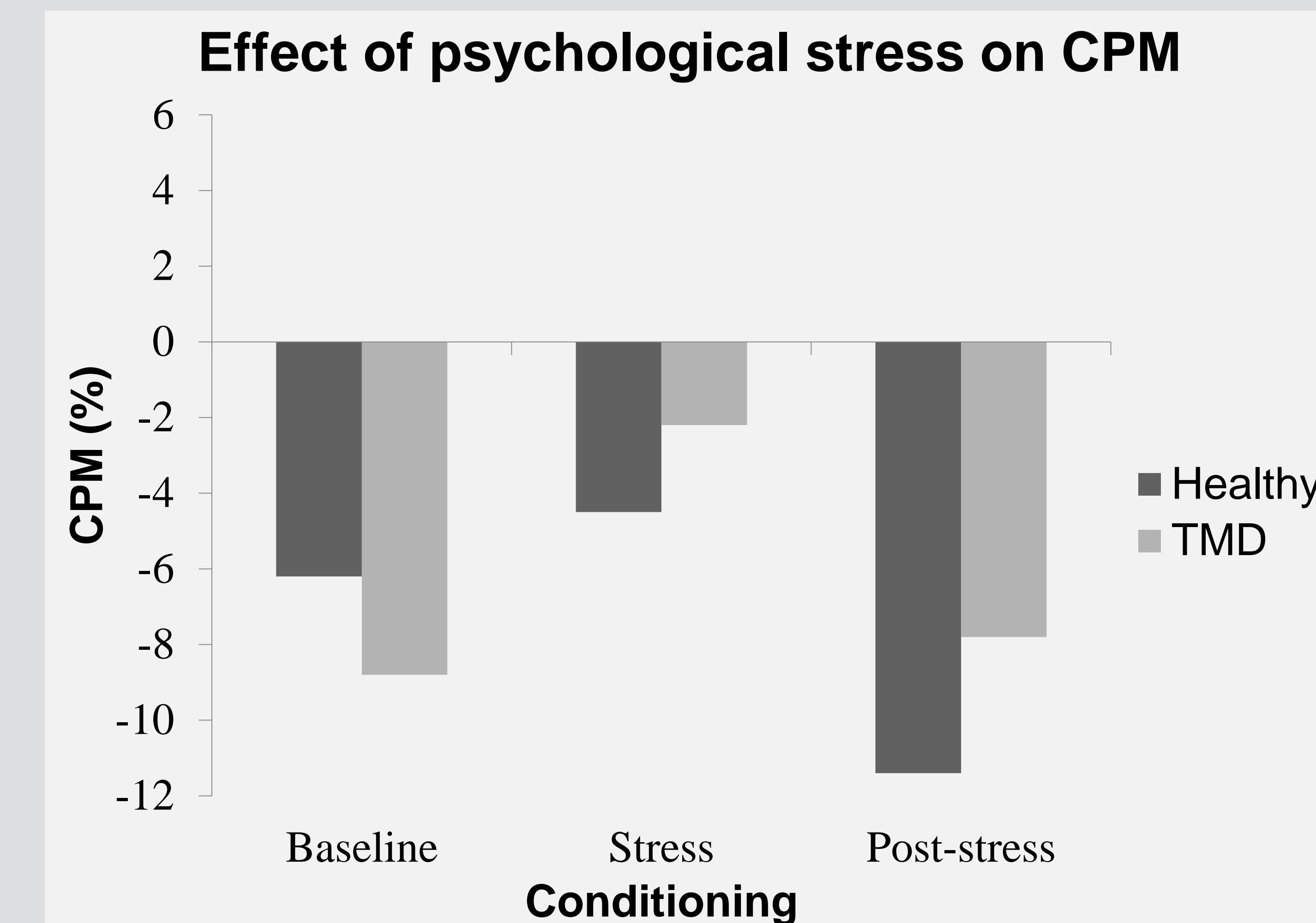
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\* Main effects of conditioning, increased reported stress at Stress session ( $p < 0.05$ )

Neither groups differences  
Nor interactions ( $p > 0.05$ )

**Figure 1** – Graphical representation of reported stress in different conditions.



Neither main effects of conditioning/group  
Nor interactions ( $p > 0.05$ )

**Figure 2** – Graphical representation of relative changes for CPM in different conditions.

## Conclusion

Acute mental stress does not significantly change the CPM efficiency in myofascial TMD patients and healthy controls, which could argue in favor of a physiological stability of the descending inhibitory pain modulation mechanisms.