

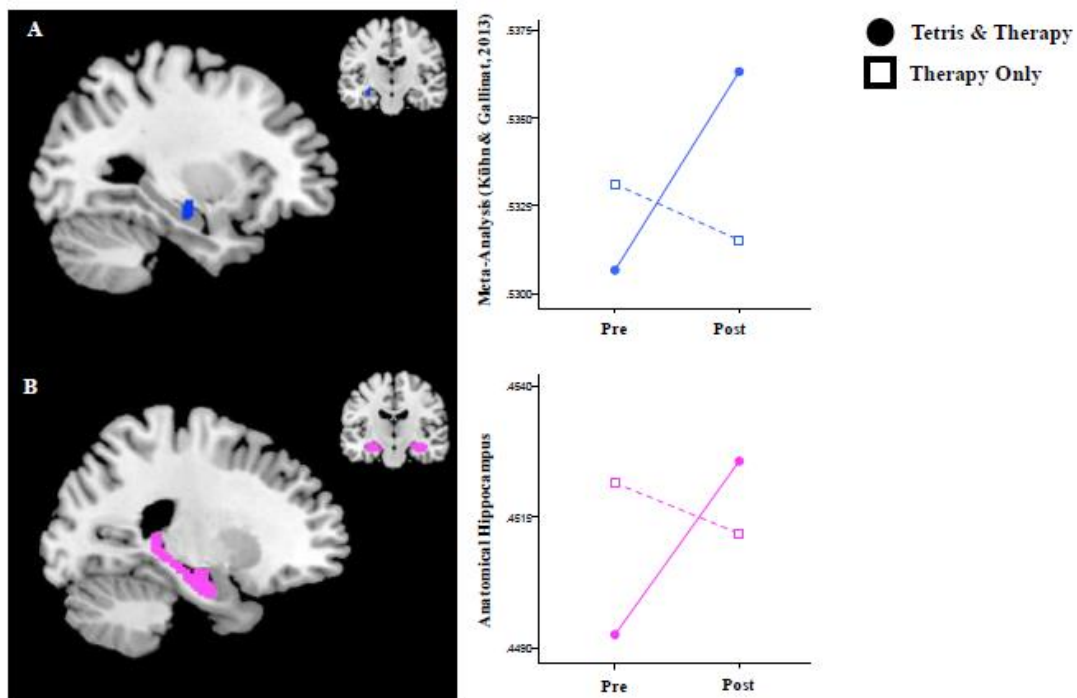
Appendix 1 to Butler O, Herr K, Willmund G, et al. Trauma, treatment and Tetris: video gaming increases hippocampal volume in male patients with combat-related post-traumatic stress disorder. *J Psychiatry Neurosci* 2020.

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SUPPLEMENTARY RESULTS



Supplementary Figure 1. Region of interest hippocampal volume.

Hippocampal gray matter volume showed a significant group by time interaction, with larger volumes at the post assessment in the Tetris group but not the control group.

A) Left anterior hippocampal cluster identified in a meta-analysis of PTSD neuroimaging studies (20) ($F(1,38)=4.42$, $p=0.04$, $\eta_p^2=0.10$).

B) Bilateral anatomical hippocampus defined using the anatomical automatic labelling (AAL) template (43) ($F(1,38)=7.07$, $p=0.01$, $\eta_p^2=0.16$).

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1 **Table S2. Gray Matter Volume from Region of Interest Neuroimaging Analysis Results**

Variable	Group	Pre Mean (SD)	Post Mean (SD)	Time	Time*Group	Group
Meta-Analysis ACC[¶]	Tetris	.56 (.08)	.56 (.08)	F(1,38)=0.12, p =0.72, n _p ² =0.01	F(1,38)=1.08, p =0.31, n _p ² =0.03	F(1,38)=0.279, p =0.60, n _p ² =0.01
	Therapy Only	.57 (.05)	.57 (.06)			
Meta-Analysis vmPFC[¶]	Tetris	.52 (.05)	.52 (.06)	F(1,38)=0.270, p =0.61, n _p ² =0.01	F(1,38)=0.82, p =0.37, n _p ² =0.02	F(1,38)=0.02, p =0.82, n _p ² =0.01
	Therapy Only	.52 (.07)	.52 (.07)			
Bilateral Anatomical Amygdala[¥]	Therapy Only	.59 (.05)	.59 (.05)	F(1,38)=0.50, p =0.48, n _p ² =0.01	F(1,38)=0.18, p =0.68, n _p ² =0.01	F(1,38)=0.06, p =0.81, n _p ² =0.01
	Tetris	.59 (.04)	.59 (.05)			

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3 [¶]Anterior cingulate cortex (ACC) and ventromedial prefrontal cortex (vmPFC) clusters identified in a meta-analysis of PTSD
4 neuroimaging studies (20).

5 [¥]Bilateral anatomical amygdala defined using the anatomical automatic labelling (AAL) template (43).

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