

Testing Restorative Effects of Playing Violent Video Games after Frustration



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THEORY

CATHARSIS EFFECT

“A reduction in aggressive arousal brought about through the performance of aggressive acts.”
(Geen & Quanty, 1997, p. 5)

Engaging in virtual violence decreases aggression

(Lee et al., 2021, Tyack et al., 2020)

MOOD MANAGEMENT THEORY

Media can alter current mood state; individuals are inclined to choose & interact with media for mood improvement
(Reinecke, 2016)

Playing violent video games can induce physiological relaxation

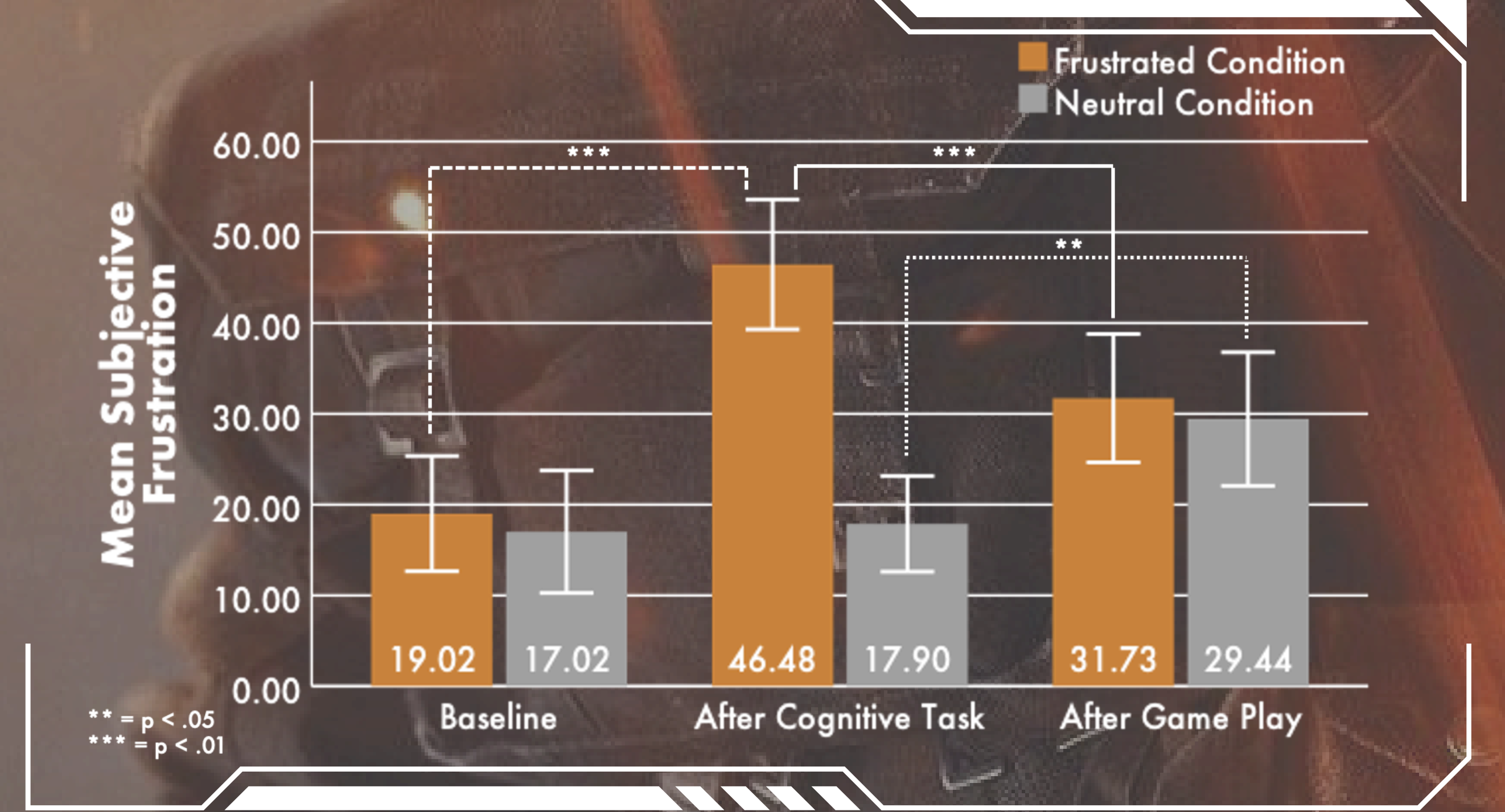
(Wagener & Melzer, 2022)

HYPOTHESES

- **H1:**Playing a violent video game (VVG) leads to a decrease in subjective frustration after a frustration task.
- **H2:** After a frustration task, playing VVG leads to decreased aggressive behavior.
- **H3:** Playing a VVG leads to physiological relaxation.

RESULTS

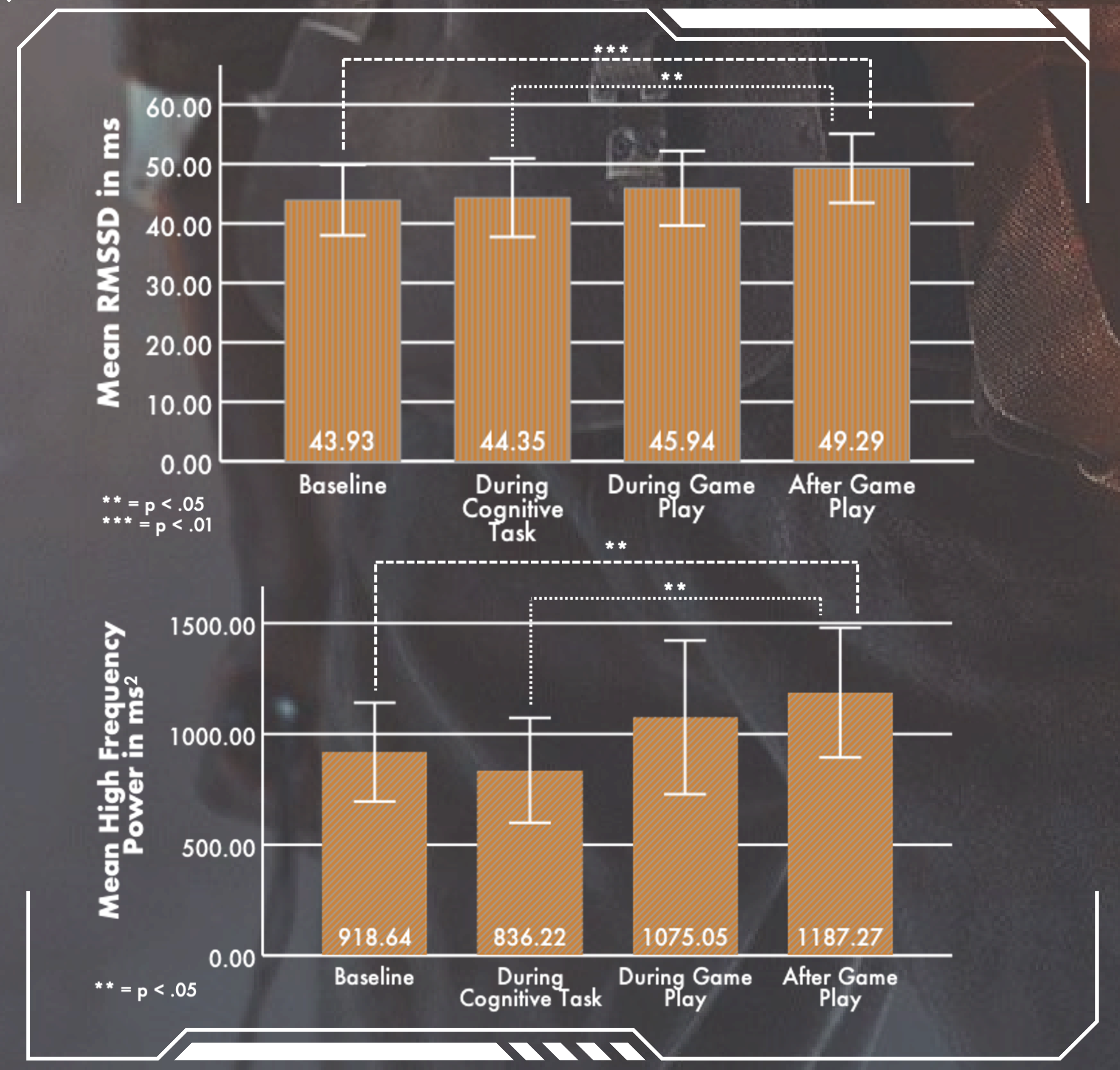
RESULTS H1:



RESULTS H2:

Frustrated participants displayed more aggression ($M = 61.83$; $SD = 69.86$) than neutral participants ($M = 35.28$; $SD = 40.21$) after playing the violent game. (Welch's $F(1, 66.09) = 4.50$, $p = .038$, $\eta^2 = .05$)

RESULTS H3:



METHODS

PARTICIPANTS

N = 85

Age: M = 23.18 years ($SD = 4.08$; range: 18–39 years)

Gender: 61.2% female ($n = 52$), 38.8 % male ($n = 33$)

Gaming Experience: M = 3.33 h/week ($SD = 5.65$; range: 0–24 hours)

DVs: Subjective aggression, subjective frustration, aggressive behaviour, physiological relaxation

IV: Condition (neutral vs. frustration)

MEASURES AND PROCEDURE

INFORMED CONSENT
DEMOGRAPHIC DATA
GAMING HABITS



- 1st PANAS – Watson et al., 1988
- VAS1 (VAS – Williams et al., 2010)
- HRV T1
- PAIN SENSITIVITY QUESTIONNAIRE (PSQ – Ruschewyh et al., 2009)
- COLD PRESSOR TASK 45sec (CPT – Schwabe & Schächlinger, 2018)



CONTROL GROUP

- NEUTRAL COGNITIVE TASK
- HRV T2
- VAS2



EXPERIMENTAL GROUP

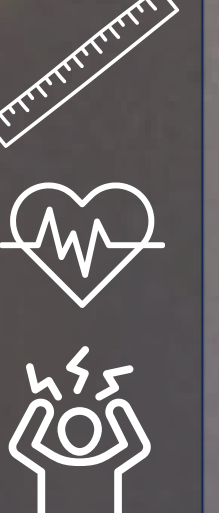
- FRUSTRATING COGNITIVE TASK
- HRV T2
- VAS2



BF1 VIOLENT VIDEO GAME (25 MIN.)
HRV T3



- 2nd PANAS
- VAS3
- MANIPULATION CHECK
- GAME PERCEPTION
- AGGRESSIVE BEHAVIOR (CPT time assigned to next participant)
- HRV T4



BATTLEFIELD 1



DISCUSSION

- Playing a VVG after a frustrating task led to a **decrease in subjective frustration** (H1) → **Mood repair**
- **After violent gameplay, frustrated participants were significantly more aggressive** (H2)
- **Greater levels of physiological relaxation** after gameplay compared to baseline and during cognitive task, regardless of condition (H3)

LIMITATIONS

- **Broader spectrum of VVG and frustrating tasks needed**
- Only short-term effects → **Long-term effects?**
- **Increase in frustration in control group after VVG** → Perceived increase in complexity between neutral task and game play?



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