

Case study in psychotraumatology based on somatic psychotherapy: exploration of change process with IPE and HRV data

Démurger, M.¹, Pomini, V.²

¹ PhD Student, Psychologist and Occupational Therapist, University of Lausanne, Institute of psychology

² Full Professor, University of Lausanne, Institute of psychology

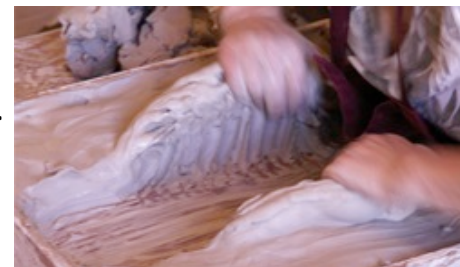
1. Case study with mixed methods:

This study explores the change process within a therapeutic trauma-focused approach based on somatosensory experience.

Case study: Female, 58yrs, married with 3 adult children, PTSD complex.

TEC : psychic and physical abuse; physical violence and emotional neglect during childhood, sexual abuse during adolescence.

ITDST : emotional dysregulation (blunting and overflow), nightmares, negative self-image, low self-esteem, feelings of uselessness.



10 sessions: audio-video, HRV monitoring with Clay Field therapy, 3-phased trauma-focused approach

Psychological measure: Assimilation model

Physiological measure: HRV

Level of problematic experiences assimilation, APES

HRV (Heart rate variability): Emotional regulation marker

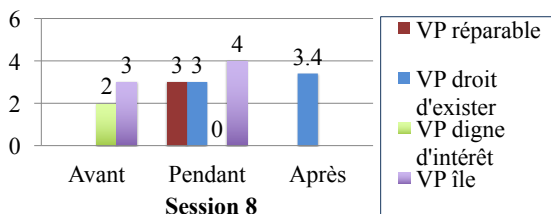
- 0. Warded off/dissociated
- 1. Unwanted thoughts
- 2. Vague awareness
- 3. Problem statement
- 4. Understanding/insight
- 5. Application/working through
- 6. Problem solution
- 7. Integration/mastery

High HRV: correlated with positive psychological faculties, such as social skills, executive functions, secure attachment, resilience.
Low HRV: correlated with emotional and cognitive dysregulation, psychological inflexibility and various psychopathologies.

2. Results: understanding of problematic experiences and increased HRV

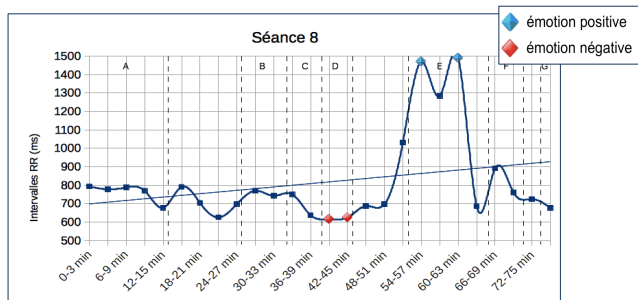
APES

- Level of problematic experiences assimilation between 0 and 5
- Highest level during the second part of protocol
- Each problematic voice increases its integration level in 1 or 2 steps
- Intensity of hands movement doesn't increase the level of integration



HRV

- 8 of 10 sessions show positive regression
- Highest HRV when the patient feels high intensity of positive emotions.
- Low HRV at rest and lowest HRV when the patient touches the clay
- Lowest HRV when the patient feels high intensity of negative emotions



Association emotion-coherence	
Session 1	-
Session 2	✓
Session 3	✓
Session 4	✓
Session 5	✓
Session 6	✓
Session 7	✓
Session 8	✓
Session 9	✓
Session 10	-

3. Discussion:

News Emotional overflow is associated with negative emotions, but not with hands movements
Hands movements allow the expression of each problematic voice.

Intensity of hands movements doesn't correlate with an increased level of integration

Coherence with literature At the beginning of the sessions, touching the clay initiated a dysregulated HRV

During the session, touching the clay with a « secure » touch increased HRV

Bibliography:

Beauchaine, T. P., & Thayer, J. F. (2015). Heart rate variability as a transdiagnostic biomarker of psychopathology. *International Journal of Psychophysiology*, 98(2), 338-350.
Cloitre, M., Courtois, C. A., Ford, J., Green, B., Alexander, & Van der Hart, O. (2012). *The ISTSS Expert consensus treatment guidelines for complex PTSD in adults*. Elbrecht, C. (2013). *Trauma Healing at the Clay Field: a sensorimotor art therapy approach*. London: Kingsley Publishers.