**Title:** Effects of a hypnosis-based intervention on fatigue and sleep difficulties in post-treatment cancer patients.

**Authors:** C. Grégoire<sup>1</sup>, M.-E. Faymonville<sup>2</sup>, A. Vanhaudenhuyse<sup>2</sup>, V. Charland-Verville<sup>3</sup>, G. Jerusalem<sup>4</sup>, N. Dardenne<sup>5</sup>, I. Bragard<sup>1</sup>.

<sup>1</sup> Public Health Department, and Sensation & Perception Research Group, GIGA-Consciousness, University of Liège, Liège, Belgium. <u>ch.gregoire@uliege.be</u> ; <u>isabelle.bragard@uliege.be</u>

<sup>2</sup> Algology Department, University Hospital of Liège, and Sensation and Perception Research Group, GIGA Consciousness, University of Liège, Liège, Belgium. <u>avanhaudenhuyse@chuliege.be</u>; <u>mfaymonville@chuliege.be</u>.

<sup>3</sup> GIGA Consciousness, Coma Science Group, University Hospital of Liège and University of Liège, Liège, Belgium. <u>vanessa.charland-verville@uliege.be</u>

<sup>4</sup> Medical Oncology Department, CHU Liège and University of Liège, Liège, Belgium. <u>g.jerusalem@chuliege.be</u>

<sup>5</sup> Public Health Department, Biostatistics, University of Liège, Liège, Belgium. <u>ndardenne@uliege.be</u>

**Objectives/purpose:** Fatigue and sleep difficulties are common symptoms reported by patients with cancer, even years after treatment completion. Hypnosis showed positive results on these negative consequences [1, 2]. However, hypnosis studies generally focused on breast cancer patients. The aim of our study is to test the impact of a group intervention combining self-hypnosis and self-care on post-treatment fatigue and sleep difficulties in patients with different types of cancer.

**Methods:** In this unicenter, longitudinal randomized controlled trial, fatigue and sleep symptoms were assessed with different questionnaires (Multidimensional Fatigue Inventory [3], with 5 subscales: general fatigue, physical fatigue, mental fatigue, reduced motivation and reduced activity; Insomnia Severity Index [4]), and the use of an actigraph (total sleep time and wake after sleep onset). Intervention impact was tested with repeated measures ANOVAs adjusted for age and diagnosis (breast vs other cancers).

**Results:** 104 patients with cancer are included in our study. Until now, only baseline data were collected for all patients. T2 data will be available in July 2019. Repeated measures ANOVA will be conducted to assess the impact of the intervention on fatigue and sleep difficulties. We hypothesize that the experimental group will improve more on all the variables than the control group.

**Conclusion and clinical implications:** The positive impact of this self-hypnosis/self-care intervention has been shown previously for breast cancer [2]. If our results showed positive effects on sleep and fatigue in the experimental group, they will suggest that this intervention can be useful for other cancer populations as well.

## References

1. Kwekkeboom KL, Cherwin CH, Lee JW, Wanta B. Mind-body treatments for the pain-fatigue-sleep disturbance symptom cluster in persons with cancer. J Pain Symptom Manage. 2010;39:126–38.

2. Grégoire C, Bragard I, Jerusalem G, Etienne A-M, Coucke P, Dupuis G, et al. Group interventions to reduce emotional distress and fatigue in breast cancer patients: a 9-month follow-up pragmatic trial. British Journal of Cancer. 2017;117:1442–9.

3. Gentile S, Delaroziere JC, Favre F, Sambuc R, San Marco JL. Validation of the French 'multidimensional fatigue inventory' (MFI 20). European journal of cancer care. 2003;12:58–64.

4. Savard M-H, Savard J, Simard S, Ivers H. Empirical validation of the Insomnia Severity Index in cancer patients. Psychooncology. 2005;14:429–41.