

## **Sustainability | Individual communication**

IC - (21364) - EFFECTS OF SIMULATED RESTORATIVE ENVIRONMENTS IN CANCER PATIENTS

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### **Background and objectives**

In cancer treatment, radiotherapy is administered to most patients as first-line therapy. It has been identified that patients receive information of an anecdotal nature, for example, believing that RT is only palliative care, uncertainty due to radiation or being injured by the equipment, which, together with the physical conditions of the waiting room, generate high levels of stress in patients who are going to face radiotherapy for the first time.

Although positive results have been reported in the literature between simulated restorative environments and psychophysiological stress reduction, it is of great importance to test these effects in scenarios where stress is experienced.

This study examined the influence of simulated restorative environments on patients stress levels whilst seated in a radiotherapy waiting area.

### **Process and methods (for empirical research)**

For this study, a quasi-experimental, randomized design was used, with a control group and recording of physiological signals. A psychophysiological stress profile was developed with cognitive and emotional stress tasks and a relaxation phase in which one of three possible restorative environmental simulations or a simulation with neutral content was presented. To assess stress, used psychometric instruments before and after; and as physiological markers, the electrical resistance of the skin and the heart rate were recorded. The final sample consisted of 117 patients who were waiting for the first time for radiotherapy treatment.

### **Main results (or main arguments in the case of critical reviews)**

After analyzing between and within groups, it was found that the simulated restorative environments in their three modalities (static, dynamic and virtual reality) have stress-reducing effects.

### **Implications for research and practice/policy | Importance and originality of the contribution**

The results point toward the use of non-invasive psycho environmental strategies for stress recovery, through simulated restorative environments that make it easier for the patient to recover in the site where he experiences acute stress, without having to move to a natural restorative environment inside or outside of the hospital. These are relevant for hospital without access to nature.

**Palavras-chave :** Restorative environments, psycho-environmental intervention, stress, environmental simulation, cancer hospital