

## **Realidade virtual no tratamento da acrofobia**

### **Results:**

Recently virtual reality has been used to treat acrophobia through the simulation of phobic situations. The majority of these studies doesn't have control groups, are single case studies or had used virtual reality before real exposition. For the acrophobia treatment we replicate in virtual ambience a real local (a building with 8 stories in Braga – Portugal). 10 subjects have been submitted to virtual reality exposition and the other 5 to a real ambience exposition. As the subjects approach the balcony, claim stores or report lower levels of subjective discomfort units the therapist offer verbal orientation and encouragement to the subjects (in the real and tee virtual environments). The subjects are continually instructed and encouraged to explore the environment, look at the ground and stay as long as possible in each situation until their anxiety diminishes. In what concerns the virtual reality group instead of the short exposition the subjects after the treatment are able to claim more steps with less anxiety. In a follow-up year they are able to maintain these gains. Both groups didn't show significant differences in what concerns the behaviour performance (number of steps claimed in a fire ladder) and the attitude towards heights and the acrophobia questionnaires. The treatment time has been very different between both treatments. The average treatment time for the virtual reality group has been 22,3 minutes and for the reality group has been 51,7 minutes. We can't assume that the treatment with virtual reality is better or worse than the treatment with real environments, but we can say that the virtual reality treatment has real benefits and these are maintained in one-year time.

### **Published Works:**

Coelho, C., Santos, J., Silvério, J. & Silva, C. (2006). *"Virtual reality and acrophobia: one year follow up and case study"*. *CyberPsychology and Behavior*, 9, 3, 336-341.

Coelho, C., Silva, C., Santos, J. & Silvério, J. (2005). *"Realidade virtual aplicada ao tratamento da acrofobia: Estudo de caso"*. *Psiquiatria Clínica*, 26, 2, 153-165.

Coelho, C., Silvério, J., Silva, C. & Santos, J. (2005). *"Realidade virtual no tratamento da acrofobia: resultados de um estudo experimental"*. In J. Baralt, N. Callaos, V. Martinez, A. González & M. Avila. (Eds.), *Actas da 4º Conferência Iberoamericana em Sistemas, Cibernética e Informática* (pp. 145-149) organizada pelo Instituto Internacional de Informática y Sistemas. Orlando, Estados Unidos da América.

Silvério, J., Santos, J. & Silva, C. (2000). *"Realidade virtual: novo instrumento terapêutico"*. In J. L. Ribeiro, Isabel Leal & Maria Dias (Eds.) *Actas do III Congresso Nacional de Psicologia da Saúde " Psicologia da Saúde nas Doenças Crónicas"* (pp. 409-416) organizado pela Sociedade Portuguesa de Psicologia da Saúde. Fundação Calouste Gulbenkian, Lisboa.

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