



## Early neuropsychological treatment reduces after-effects in patients with acquired brain injury

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Researchers at the University of Granada have proved that patients suffering traumatic brain injury (TBI) and ictus must receive neuropsychological treatment at hospital without delay. Early intervention within the first six months reduces further injury in the cognitive (attention, memory, planning, etc), emotional (irritability, lack of motivation, etc) and behavioural areas (impulsiveness, aggressivity, etc.)

Researchers at the University of Granada have proved that neuropsychological rehabilitation helps in significantly reducing cognitive, emotional and behavioural after-effects in patients with acquired brain injury, generally due to traumatic brain injury and ictus. These patients should not wait to be treated later by the social services, since early intervention (within six months after the traumatism) reduces further after-effects.

Despite the prevention campaigns launched for reducing traffic accidents and improving heart-friendly habits, traumatic brain injury and ictus are very frequent and increasingly affect younger people. Both pathologies cause changes in behaviour, mainly in the cognitive (attention, memory, planning, etc), emotional (irritability, lack of motivation, etc) and behavioural areas (impulsiveness, aggressivity, etc.). Most patients suffer permanent after-effects that hinder full recovery. This limits their independence to carry out work, academic and social activities in their daily living.

### Early Intervention

This study was carried out by Alfonso Caracuel Romero, of the Department of Personality and Psychological Evaluation and Treatment, and conducted by professors Miguel Pérez García y Antonio Verdejo García. This research proved that the longer the treatment is delayed, the more serious emotional alterations –directly caused by the traumatism or as a result of the changes in the patient's life– will be.

To carry out this study, researchers took an initial sample of 7 patients with acquired brain injury and their families, and were compared with a control group of patients that did not receive any neuropsychological treatment. Then, 18 patients and their families were treated with a neuropsychological treatment. As a result of the intervention, patients improved their general cognitive performance (attention, memory, etc) and their emotional state (lower depression levels), activity level (reduction of apathy) and their ability to regulate their social behaviour. However, within this group, those receiving early neuropsychological assistance improved more significantly their emotional and cognitive abilities in the long term than the patients that received neuropsychological treatment when more than six months have passed since the traumatism.

Alfonso Caracuel Romero states that, so far, no data have been available within the context of the Spanish social and health assistance system that proved the efficiency of holistic neuropsychological rehabilitation programs. "With this study, the relevance of treating cognitive, emotional and behavioural skills simultaneously in patients with acquired brain injury has been proved" –the researcher states.

The results obtained in this study will be partially published in national (Rehabilitación) and international journals (Clinical Neuropsychology), and will be shortly published in The Journal of Head Trauma Rehabilitation.

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