

## A Case Report on Cognitive-Communication Intervention in Traumatic Brain Injury

**Authors :** Nikitha Francis, Anjana Hoode, Vinitha George, Jayashree S. Bhat

**Abstract :** The interaction between cognition and language, referred as cognitive-communication, is very intricate, involving several mental processes such as perception, memory, attention, lexical retrieval, decision making, motor planning, self-monitoring and knowledge. Cognitive-communication disorders are difficulties in communicative competencies that result from underlying cognitive impairments of attention, memory, organization, information processing, problem solving, and executive functions. Traumatic brain injury (TBI) is an acquired, non - progressive condition, resulting in distinct deficits of cognitive communication abilities such as naming, word-finding, self-monitoring, auditory recognition, attention, perception and memory. Cognitive-communication intervention in TBI is individualized, in order to enhance the person's ability to process and interpret information for better functioning in their family and community life. The present case report illustrates the cognitive-communicative behaviors and the intervention outcomes of an adult with TBI, who was brought to the Department of Audiology and Speech Language Pathology, with cognitive and communicative disturbances, consequent to road traffic accident. On a detailed assessment, she showed naming deficits along with perseverations and had severe difficulty in recalling the details of the accident, her house address, places she had visited earlier, names of people known to her, as well as the activities she did each day, leading to severe breakdowns in her communicative abilities. She had difficulty in initiating, maintaining and following a conversation. She also lacked orientation to time and place. On administration of the Manipal Manual of Cognitive Linguistic Abilities (MMCLA), she exhibited poor performance on tasks related to visual and auditory perception, short term memory, working memory and executive functions. She attended 20 sessions of cognitive-communication intervention which followed a domain-general, adaptive training paradigm, with tasks relevant to everyday cognitive-communication skills. Compensatory strategies such as maintaining a dairy with reminders of her daily routine, names of people, date, time and place was also recommended. MMCLA was re-administered and her performance in the tasks showed significant improvements. Occurrence of perseverations and word retrieval difficulties reduced. She developed interests to initiate her day-to-day activities at home independently, as well as involve herself in conversations with her family members. Though she lacked awareness about her deficits, she actively involved herself in all the therapy activities. Rehabilitation of moderate to severe head injury patients can be done effectively through a holistic cognitive retraining with a focus on different cognitive-linguistic domains. Selection of goals and activities should have relevance to the functional needs of each individual with TBI, as highlighted in the present case report.

**Keywords :** cognitive-communication, executive functions, memory, traumatic brain injury

**Conference Title :** ICCSP 2016 : International Conference on Cognitive Science and Psychology

**Conference Location :** Amsterdam, Netherlands

**Conference Dates :** May 12-13, 2016