

Use of new technologies on child neuropsychology: Evaluation of sustained attention with virtual reality and cognitive intervention with artificial intelligence

Mariana Téllez-Silva

Neurodevelopmental Unit, Spanish Hospital, Mexico City

Abstract

These presentation focus on our work on neurodevelopmental unit evaluating sustained attention in children from 6 to 14 years with AULA Nesplora. This is a software focused on the evaluation of sustained attention through a CPT paradigm in a school environment. AULA not only evaluates the tendency to distraction, deviation of the focus of attention and motor activity. It also measures auditory and visual attention, offering valuable information for both diagnosis and treatment prescription. This software its very attractive to the child and guarantees their cooperation. In addition, being based on a situation similar to reality, the professional can get a very real idea about the child's behavior.

Likewise, at the level of cognitive intervention, use is made of the Sincrolab kids platform. Sincrolab is a training platform aimed at the recovery and development of cognitive abilities. It is a personalized, standardized and scientifically validated stimulation system focused on the educational and health field. Also, this platform its fed with the results of the neuropsychological evaluation and modified with the support of artificial intelligence. Both in the field of evaluation and rehabilitation, it is necessary to support ourselves from the constant development and evolution of new technologies, without neglecting the analytical capacity of the clinician. However, being able to rely on technologies such as artificial intelligence and virtual reality to obtain more reliable results and the modification of therapy programs based on the capacities developed by the patient in real time and when it is not possible for patients attend face-to-face therapy sessions as in the case of the current situation in the COVID 19 pandemic. On this presentation we display the theory on which these softwares is based, on which cases we use them, the results we get of them, and how our patients behave.

Biography

Mariana Téllez Silva has completed her master in clinical neuropsychology at the age of 26 years from National Autonomous University of México, she had her Psychology degree from National Autonomous University of México. She has 5 years of experience working with children and young adults, among the evaluation and rehabilitation of neurodevelopmental disorders and brain damage. She's been doing clinical

rotations on variety of public and private hospitals, among them, National Institute of Neurology and Neurosurgery "Manuel Velasco Suárez", National Medical Center "20 de Noviembre" ISSSTE and National Medical Center "Siglo XXI", IMSS. Nowadays she's working on Medica Sur Hospital, and Spanish Hospital on México City as clinical neuropsychologist.