

Neurology & Brain Injury 2019 - MentalPlus digital game for cognitive evaluation in psychiatric disorders

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Abstract

We know that many psychiatric and neurological disorders affect cognition such as senile illnesses, mood changes, external factors such as surgical interventions, anesthetic procedures, cardiorespiratory arrest, and organic diseases such as diabetes and hypertension. Concerned about this factor, we, a group of neuroscientists involved with health and technology developed the digital game MentalPlus. This game was created to evaluate and rehabilitate cognitive functions in a playful and fast way since other neuropsychological tests traditionally (paper) evaluate the same functions for a very long period, approximately three hours. The MentalPlus digital game assesses memory, visual perception, attention, and inhibitory control of executive functions in just 25 minutes. It has 12 different themes so that the professional can evaluate, rehabilitate and reassess a person without incurring the possibility of the test presenting the learning effect. The only learning it provides is the greater ability in handling a tablet for people who do not master these features. The digital game MentalPlus is in several countries: Thailand; Egypt; Japan; United States; Denmark; Netherlands; Brazil, Portugal. Being studied in clinical trials for several pathologies such as attention deficit and hyperactivity disorder (ADHD), depression, general and cardiac surgeries with the use of deep anesthesia, Perthes Syndrome, learning difficulties and the cognitive evaluation for normalization and validation of the results of the game in healthy people from eight years to 80 years of age. The digital game MentalPlus is also being used as an aid to other techniques for cognitive rehabilitation, as in the concomitant use with transcranial current stimulation-tDCS for the improvement of the attentional, mnemonic and executive functions. The digital game is self-explanatory and can be used offline, and it offers graphics and tables with the player's scores and cognitive performance, if you are a health professional or education and researcher and would like to be part of our team; welcome.

Biography :

Livia S S Valentin has completed her PhD from the University of São Paulo-School of Medicine and Duke University and Post-doctoral studies from Harvard Medical School. She is the Principal Investigator of MentalPlus Project, the international and multicentric study linked at National Institute of Health (NIH) and registered in the ClinicalTrials.gov under number NCT 02551952. She has published several papers in renowned journals and has been serving as an Editorial Board Member of repute whose main topics are Psychology, Psychiatry, Neurosciences, Anesthesiology, Neuropsychiatry, and Cardiology.

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