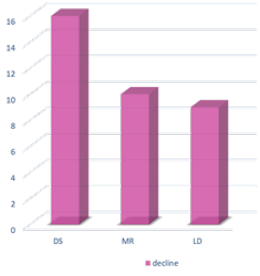
Kalliopi Megari, J Neurol Disord 2021, Volume 09

Brain, emotion & COVID-19: Connections and implications in children with disabilities

Kalliopi Megari
Aristotle University of Thessaloniki; Greece

A novel coronavirus (SARS-CoV-2) currently led to previously unknown COVID-19 pandemic. COVID-19 may cause damage to many systems such as the heart, the kidneys, and the brain. Developmental neuropsychology investigates age-related changes in cognitive functions in the brain. More specific, developmental neuropsychology use models of neurocognitive development to explore the features of important brain development and use models of brain development to address broader theories about cognitive development and age-related neurocognitive changes. Research explores the way that cognitive competencies are obtained and the relationship to demonstrable changes in brain functions. Children with various disabilities show neuropsychological deficits in attention, short-term memory, and sequential information processing, whereas language and visuospatial abilities are varied. There are neuroanatomical abnormalities in the cerebellum and hippocampus. We studied the performance of children (Mean age 15 years) with mental retardation (n=20) compared to Down Syndrome (n=21) and learning disabilities (n=18). Neurocognitive functions were assessed, namely attention, visuospatial perception, executive functions, memory, using a battery of neuropsychological tests. We had an assessment of emotions, such as anxiety, depression, positive and negative mood to investigate the emotional functioning. Results revealed a statistical significance in performance of children with Down Syndrome meaning lower performance compared to other groups ($p<0.001$). Children with Down Syndrome showed a significantly lower performance on all cognitive domains compared to other groups. In addition, all children had a low performance of emotional functioning with no statistic significant changes among groups. Neuropsychological and emotional alterations can be investigated with repeated testing, an essential procedure for an accurate interpretation of neuropsychological performance in children with disabilities. Optimal outcome has primary important implications for targeted interventions of present findings.



Biography

KalliopiMegari is a clinical neuropsychologist working in hospital & health care industry. She is a lecturer at University of Western Macedonia in Greece. Skilled in Clinical Neuropsychology, Clinical Research and Learning Disabilities. Graduated from Aristotle University of Thessaloniki and attended further education from University of Macedonia, in people with special needs and disabilities. She holds undergraduate degrees in Nursing and Psychology, as well as a Master's and a PhD in Neuropsychology from Aristotle University of Thessaloniki. She has many years of experience working with chronic disease patients as well with people with disabilities. Her work has earned her many prestigious international awards. She has given lectures at Aristotle University of Thessaloniki and University of Warsaw. She is postdoctoral researcher and has published many articles in journals. She is the Global Engagement Representative of International Neuropsychological Society and General Secretary &member of the Ethics Committee of Hellenic Neuropsychological Society.