Development of new treatment paradigm in pediatric psychology

Soyong Eom1, Hae-Yoon Choi1,2, Yoon Kyoung Choi1,2, Si-Baek Seong1,5, Changwon Jang1,5, Chongwon Pae1,5, Kyesam Jung, M.S.1,4, Jinseok Eo1,2, Junho Son1,3, Joo Young Lee1, Sera Shin1, Jiyoung Kang1,6, Hae-Jeong Park1,3

1Yonsei University College of Medicine, Republic of Korea
2Yonsei University, Republic of Korea
3University of Hyogo, Japan

Cognitive control functions are associated with a wide range of psychological processes, including but not limited to attention, memory, emotional and social processes. Deficits in such functions in children and adolescents are likely to cause problems such as Learning Disorder (LD) and attention deficient hyper-activity disorder (ADHD). It also may lead to poor social relationships and affect quality of life in the long run. Aim of the current study is to develop and validate a new treatment paradigm that considers both cognitive and non-cognitive functions such as social and communication skills as well as emotional control. In order to improve the accessibility of pre-existing treatment strategies, current study will develop a new form of Computerized Remediation Therapy (CRT) program by implementing mobile-based Virtual Reality (VR) technology. This new method will open new possibilities in diagnosing and treating cognitive control deficiency by: (1) acquiring natural response data (opposed to the types of data that are collected in more controlled settings, such as clinics or laboratories), (2) enabling treatment in an interactive and naturalistic environment, (3) employing artificial intelligence technology to extract principal index from complex multi-dimensional data and (4) strengthening personalized side in executing treatment programs. To achieve those objectives, this study will take an interdisciplinary approach among experts in cognitive and clinical psychology, brain science, artificial intelligence and Information and Communication Technology (ICT).

Recent Publications

Biography
Soyong Eom has received BS degree in Biology and BA degree in Psychology from Yonsei University, Seoul, Republic of Korea and MA and PhD degrees in Clinical Psychology from the Yonsei University. She has worked as a Residency and Research Fellow in Department of Psychiatry and Neurology from Severance Hospital, Yonsei University College of Medicine. Her primary research interests are neurocognitive function and psychological profile of pediatric patients with chronic illness. She has expertise in evaluation and therapeutic interventions for pediatric patients and their caregivers.

sy0512@yuhs.ac