

TRACKING OF EYE MOVEMENTS IN CHILDREN WITH ASD SYMPTOMS AT VISUAL PERCEPTION OF SOCIAL STIMULI

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The set of visual stimuli including socially significant (faces, interaction among people) and neutral (complex geometric patterns) elements was developed. These stimuli were presented with the help of the RED-250 eye-tracker. The sample consisted of 16 children aged from 25 to 50 months. All children were divided into two groups. Experimental group: children with ASD elements. Children of this group had been screened by a child psychiatrist and had such symptoms as stereotypic movements, avoidance of eye contact, speech delays. The control group included healthy children. The eye movements characteristics were detected and compared between the two groups. Significant differences were found between the groups of children in such characteristics of eye movements as mean fixation time, number and duration of fixations. The children with ASD elements were prone to attend less to the scenes depicting social interaction, children at play and the children faces. These results demonstrate the means of using eye-trackers in the early diagnosis of ASD.

Keywords: children of early age, autism spectrum disorders, socially significant stimulus, visual stimulus, eye movements, eye-tracking.

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