Visual Perception of ADHD Children with Sensory Processing Disorder

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Objective
The aim of the present study was to investigate the visual perception difference between ADHD children with and without sensory processing disorder, and the relationship between sensory processing and visual perception of the children with ADHD.

Methods
Participants were 47 outpatients, aged 6-8 years, diagnosed with ADHD. After excluding those who met exclusion criteria, 38 subjects were clustered into two groups, ADHD children with and without sensory processing disorder (SPD), using SSP reported by their parents, then subjects completed K-DTVP-2. Spearman correlation analysis was run to determine the relationship between sensory processing and visual perception, and Mann-Whitney-U test was conducted to compare the K-DTVP-2 score of two groups respectively.

Results
The ADHD children with SPD performed inferiorly to ADHD children without SPD in the on 3 quotients of K-DTVP-2. The GVP of K-DTVP-2 score was related to Movement Sensitivity section \( r=0.368^* \) and Low Energy/Weak section of SSP \( r=0.369^* \).

Conclusion
The result of the present study suggests that among children with ADHD, the visual perception is lower in those children with co-morbid SPD. Also, visual perception may be related to sensory processing, especially in the reactions of vestibular and proprioceptive senses. Regarding academic performance, it is necessary to consider how sensory processing issues affect visual perception in children with ADHD.