

Abstract

Autism Spectrum Disorder (ASD) comprises a group of neurodevelopmental disorders typically manifesting repetitive behaviors, restricted interests and activities, and a lack of social communications and interactions. Besides, ASD individuals are prevalent to display cognitive impairments including inattention and impulsivity. Though supported by studies that there is close relationship between ASD and inattention, as well as impulsivity, some of the studies did not conclude with consistent results. In this study, Conners' Continuous Performance Test (2nd ed.; CPT-II) was used to further clarify the hypothesis that ASD individuals are more inattentive and impulsive than the normal individuals. A database consisting of 62 participants (31 in normal control and ASD group respectively) after case-control matching for age, gender and intelligence quotients were used for data analysis. There were four available CPT-II scores namely Omissions, Commissions, Hit Reaction Time (Hit RT) and Perseverations from both participant groups and they were compared using Independent Samples t-Test. Results showed that Omissions and Hit RT were statistical significantly different between the two groups. The higher Omissions score and slower Hit RT indicated that ASD group was more inattentive, which was consistent with the previous studies. Nevertheless, Commissions and Perseverations showed no statistically significant differences between the two groups, thus the hypothesis of ASD individuals being more impulsive was not supported. Limitations such as imbalanced participant selection could

reduce the generalizability of conclusion. Whereas incomplete CPT-II scores and insufficient information about the influential factors could increase the uncertainty of results. It was suggested to conduct further studies after addressing the limitations.

Keywords: Autism Spectrum Disorder, cognitive impairments, inattention, impulsivity,

Conners' Continuous Performance Test