

Masterclasses

M6.5**Autistic Spectrum of Diseases****14:30 Room 423 & 424**

Executive Function Deficits in Autism Spectrum Disorder

*Lai E**Psychiatry Department, Castle Peak Hospital, Hong Kong*

There are numerous theories put forward to explain the behavioural characteristics of individuals with autism spectrum disorder. Apart from impaired theory of mind and weak central coherence, executive dysfunction is also hypothesised to be central in underlying the deficits in this disorder.

Executive functions refer to the higher processes involved in goal-directed behaviour. It has been shown to predict school readiness and academic achievement. Existing literature tends to suggest that individuals with ASD are impaired in verbal working memory, spatial working memory, flexibility and generativity. Whereas the deficit in inhibition and planning may be under the impact of comorbid attention-deficit/hyperactivity disorder.

Impaired social interaction may thus be conceptualised due to their inability to generate topics to maintain conversation or impaired working memory to store and manipulate social information for effective social interaction. Being inflexible in shifting attention may lead to restricted interests and stereotyped behaviour.

Given the malleability of executive functioning in childhood and adolescence, especially in working memory, more emphasis should be laid in ameliorating the executive dysfunction and thereby improving their academic functioning and outcomes. These deficits can be either accommodated or improved. Strategies at school had been widely advocated. Computerised training also showed promising evidence in improving either the efficiency or capacity of executive functioning. Other forms of indirect training such as aerobic exercising, mindfulness and musical training have also demonstrated modest effect in improving executive functioning.