

#### **iv. Abstract**

Background: Attention deficit hyperactivity disorder (ADHD) is one of the most important psychiatric disorders in the child and adolescent population. Children with ADHD have been found to have significant social impairment and research findings suggest such impairment may be related to the deficit in facial emotion recognition. However, many studies did not sufficiently control for the effect of the confounding factors including cultural differences. The relation between attention/impulsivity level and facial emotion recognition ability has not been fully addressed.

Aims: To evaluate the facial emotion recognition ability in ADHD children and the effect of inattention and impulsivity on such ability.

Method: 45 control subjects and 42 ADHD subjects from Primary One to Primary Three were recruited. They were matched for age, sex, intelligence and family income. The subjects were shown facial emotion pictures developed by Matsumoto and Ekman (1998) together with emotional story vignettes. Conners' Continuous Performance Test II was used to evaluate the attention/impulsivity level of the ADHD subjects.

Result: The difference in performance in facial emotion recognition between ADHD and control subjects was not statistically significant. Correlation between the accuracy of facial emotion recognition and the attention/impulsivity level was also not significant. Intelligence level correlated significantly with the facial emotion recognition ability.

Conclusion: The development of facial emotion recognition ability is affected by multiple factors and a single diagnostic label is unlikely to be fully predictive. Further research on effect of co-morbidities and ADHD subtypes difference should be considered. And cultural differences between Asian and Caucasian population should be considered when we interpret the results of facial emotion recognition in foreign studies.