

sample completed both the RMET-C-TW and Chinese Vocabulary Test (CVT) in groups at their own schools, the CVT was to ensure that participants had sufficient vocabulary skills to understand the options provided in REMT-C-TW. The criteria sample were collected from 46 matched, school-aged children with ASD (age mean = 10.52, SD = 1.62; IQ = 108.39, SD = 11.75), and normally developing controls (age mean = 10.66, SD=1.68; IQ = 109.70, SD = 12.12). These two groups were administered the (1) WISC-III (2) CVT (3) RMET-C-TW and (4) ToM Test.

Results: The results showed that RMET-C-TW had acceptable test-retest reliability and internal consistency (test-retest reliability = .71, Cronbach α = .40). There were significant gender and age difference in the performance of RMET-C-TW, example female, older participants performed better. Item analysis showed 93% of items in the RMET-C-TW had cross-cultural consistency in the distribution of respondents' choices. In criteria sample, the control group's RMET-C-TW scores significantly better than ASD group. Physician diagnosis ($r = .49$, $p < .01$) and high-order ToM's scores ($r = .33$, $p < .01$) were significantly associated with RMET-C-TW scores.

Conclusions: RMET-C-TW has acceptable reliability and good developmental validity (age-related growth) in three to nine grades, and future can be extended to different age and clinicians to understand the development of social perception. Therefore, RMET-C-TW can be used as an initial screening and cross-cultural tool for ASD. In addition, EF is divided into cold and hot, and hot EF makes a unique contribution to ToM in ASD (Kouklari et al., 2017), thus this tool may also be used in the future to understand the association of hot EF with social perception.

Categories: Emotional and Social Processes

Keyword 1: social processes

Keyword 2: test development

Keyword 3: child development (normal)

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45 The Influence of Wearing Face Mask on Facial Emotion Recognition in Preschoolers

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Objective: During the COVID-19 pandemic, wearing face masks is an important strategy to prevent people from infection, allowing people to find a balance between maintaining social interaction and keeping social distancing. Since face mask might disrupt information processing of social cognition, it could lead to less functional connectivity of occipital face area, fusiform face area, and superior temporal sulcus which interrupted the development of medial prefrontal cortex (MPFC) for mentalizing. However with better executive function (EF) people could process facial stimuli more efficiently. The objective of this study is to examine the effect of wearing face masks on preschoolers' facial emotion recognition, and the factors which might affect the development of facial emotion recognition.

Participants and Methods: In this study, preschoolers (N=44, 24 boys and 20 girls, aged 3 to 5 years-old) recruited from the community were asked to identify the emotions expressed in the 36 stimulus photos, each randomly presented with six emotion (happy, sad, angry, surprised, fearful, and disgusted). The total face stimulus photos were 2 (face sex) x 6 emotions x 3 facial features (full face, presenting upper counterparts of face with face mask covering the mouth, and presenting lower counterparts of face with hat covering the eyes). The EF of preschoolers and their parent were also evaluated to examine whether EF could predict the correct score of facial emotion recognition.

Results: It was found that the correct score of emotion recognition increased with age. The recognition with full face feature were better than with upper feature and lower feature. When recognizing happy and disgust, participant tended to use lower features. When recognizing sad and angry, participant tended to use upper features. The EF of preschoolers could predict the correct score of emotion recognition. The EF of parents could predict the preschoolers' correct score of positive emotion recognition.

Conclusions: The ability of facial emotion recognition evolved rapidly in preschool age with the accumulation of social interaction experience

and improved the development of auditory and visual subcortical cortex and the connectivity of MPFC. This study examined the emotion recognition ability of preschoolers and found that the face features preschoolers used to recognize emotion were consistent with previous study. However, when the presenting stimulus were covered by face mask or hat, it was more difficult for preschoolers to recognizing emotion which would result in difficulty of understanding the social context and development of MPFC for mentalizing. In this study, it was found that preschooler's with better EF could be more efficiently recognizing facial emotion. Also, parents with better EF showed more positive emotion in daily life which lead to their children more sensitive to positive facial emotion.

Categories: Social Cognition

Keyword 1: social cognition

Keyword 2: facial affect

Keyword 3: executive functions

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46 Exploring Social Cognition Deficits Characterised by Impulsive Responding in Children

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Objective: Theory suggests that symptoms of Attention-deficit Hyperactivity Disorder (ADHD; e.g., hyperactivity and impulsivity) may be associated with social cognition deficits characterised by fast but erroneous processing of social cues. Despite this, prior research has provided mixed evidence for (a) deficits in social cognition skills and (b) a link between such deficits and poor social outcomes among children with ADHD. We sought to clarify this ambiguity by (a) exploring variation in social cognition skills across a mixed clinical and normative population and (b) examining the demographic, clinical, and dimensional symptom profiles of children presenting with reduced social cognition skills characterised by fast but erroneous processing.

Participants and Methods: Participants were children and adolescents (N = 1,097) aged 4-18

years (M = 9.02, SD = 2.72) assessed using the Paediatric Evaluation of Emotions Relationships and Socialisation (PEERS), a child-direct, ecologically sensitive measure of social cognition. Latent profile analysis of standardised social cognition scores and response times for incorrect encoding of social cues (error-response times) was used to identify social cognition profiles. Differences between each profile in terms of demographics, clinical profiles, symptom dimensions, and social outcomes were explored.

Results: Four social cognition profiles were identified. Two profiles were identified as being of particular interest: one which captured typically developing children (TDC; n = 727), and another which was characterised by lower social cognition scores and faster error-response times (impulsive responding; n = 201). The remaining profiles captured the response styles of younger participants (n = 152) and children with more pervasive social cognition deficits (n = 17). Comparison of the two profiles of interest revealed a number of statistically significant differences (p < .05). Compared to the TDC group, the impulsive responding group had: higher SDQ scores for hyperactivity, conduct, emotional, and peer problems; lower IQ and prosocial scores, and; greater parent-perceived social function deficits. Children in this group were also more likely to be male and from a lower SES background. Clinically, 18% of children in the impulsive responding group had an ADHD diagnosis, and 14% had at least one mental health diagnosis other than ADHD.

Conclusions: A large minority of children (~18%) demonstrate social cognition deficits characterised by fast but erroneous processing of social cues. Although the explorative nature of this study does not allow conclusions to be made about the causes of such deficits, it is reasonable to conclude that they are not reducible to clinically significant symptoms of hyperactivity-impulsivity — less than 1/5 of the children in this group had an ADHD diagnosis, and 2/3 of children in this group had no mental health diagnosis at all. Child-direct tools designed to detect individual differences in social cognition skills may be beneficial in identifying individuals who will benefit from social support or interventions aimed at reducing social cognition deficits despite being missed by more traditional screening measures (e.g., clinical diagnoses). Future work should focus on understanding the causal relationships between symptoms of hyperactivity-impulsivity, fast but