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## Characteristics of HPA and ANS bio-marker changes during Group-Based social skills training in community for children with autism

### Abstract:

Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder characterized by difficulties in social interaction, communication challenges, and repetitive behaviors. Behavioral Interventions is an important component of autism treatment. Existing evaluation methods for early behavioral interventions in autism primarily rely on scales, the involvement of neurochemical methods is relatively limited. The HPA axis regulates the body's response to stress and plays a key role in the regulation of various physiological processes, including metabolism, immune function, mood, and sleep. The autonomic nervous system controls involuntary bodily functions, such as heart rate, digestion, respiratory rate, and pupillary response. Due to factors such as developmental delay, research has shown differences in the HPA axis and autonomic nervous system between children with autism and typically developing children. This study assesses the efficacy of interventions for autism spectrum disorder by monitoring representative biomarkers of the HPA axis and autonomic nervous system (ANS). Through this, it aims to understand the neurophysiological changes associated with comprehensive motor training in children with ASD. Saliva and urine samples were collected from the intervened children, and levels of cortisol and monoamine substances were measured to determine. It was found that these indicators were changed over the course of the intervention, and in the direction of the healthy control group.

### Biography

**Shen Kangwei**, 33 years old, is a doctoral student at the School of Biological Science and Medical Engineering, Southeast University.