

Abstract

In the current literature, one of the recurring suggestions was that autism spectrum disorder (ASD) individuals utilize ineffective organizational strategies to aid memory processing. However, numerous studies have shown varying results in the verbal memory function of ASD individuals and in particular there were only a few research that focused on the investigation of ASD children. Since the inconclusive results in earlier studies could be a result of the difference in frontal lobe maturity as a function of age, the present study aims to investigate verbal memory profile of ASD children using Hong Kong List Learning Test (HKLLT) and examine the organizational strategies utilized. Further, given studies have shown that external organizational support could improve ASD children's memory performance, exploration of the provision of external cues will be investigated. Twenty ASD children and thirty normal children (NC) aged 6 to 14 were recruited. The verbal memory of encoding, retention and recognition was assessed using HKLLT which contains a list of randomly organized semantically related words and another list of the same words but organized into categories. The results suggested that ASD children exhibited dual deficiencies in encoding and retrieval but intact retention and that they were susceptible to interference of irrelevant information as shown in high false alarms. Their impairment in retrieval could be associated with poor utilization of organization strategies but improvement was shown when provided with external cues, which were often characterized in frontal lobe damaged patients that show similar pattern. Hence, implying a frontal-lobe problem which is frequently distinguished in ASD. The research may lead to better knowledge of ASD children's verbal memory function which could provide insight in treatment for optimal future learning.