Commentary

Social Cognition: Autism Spectrum Disorders (ASD) in Children

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DESCRIPTION

Autism patients have issues with social interactions, social communication, and emotion identification. The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition categorises Autism Spectrum Disorders (ASD) into three severity levels, with level 3 being the most severe functional impairment in social communication and requiring "very substantial support." Individuals at level 3 have substantial deficiencies in verbal and nonverbal communication, as well as considerable difficulties coping with change. Higher functioning, Autism Spectrum Disorders (ASD) persons have trouble understanding social cues and, as a result, may get overwhelmed and nervous in social interactions, particularly with unknown individuals. Other social challenges include difficulty limiting thoughts and managing emotions, both of which are related to executive function.

While research has shown that children with High Functioning Autism Spectrum Disorder (HFA) perform lower on measures of attention and executive function, include language abnormalities, and frequently engage in stereotyped repetitive patterns of interests and/or behaviour when compared to age-matched typically developing children, they may have average to above average intellectual abilities. They may also score well on explicit social cognition assessments due to compensatory methods, but they frequently fail in circumstances demanding the capacity to intuitively grasp the emotions of others and predict their behaviours. This stark contrast between their great academic achievement and reduced social skills might lead to dissatisfaction. As a result, individuals are at a higher risk of social isolation and loneliness than their usually developing peers. Overall, the deficits in social communication, theory of mind, and executive function can have a detrimental impact on both peer relationships and education. Despite their ordinary to above average intellectual skills, social deficiencies may hamper academic achievement in school owing to low self-esteem. As a result, designing and assessing the efficacy of social cognition therapies in children with high functioning autism may contribute to protocols that improve their social interactions and quality of life as they transition from childhood to adulthood.

Recent study emphasises the benefits of employing Virtual Reality (VR) therapies, such as computer-based simulations of reality, in which people with High Functioning Autism (HFA) can practise difficult or especially demanding social interactions in a less-anxious environment. When compared to standard social skills therapies such as simple emotion detection tests or role-playing, virtual reality social training has various benefits. For starters, it may give secure, limitless, and frequently encountered day-to-day environments for practising social scenarios such as choosing someone to eat with in the lunchroom or asking someone person birthday party. It can aid in the reduction of social anxiety, as evidenced by a virtual reality intervention.

In addition second to cognitive behavioral therapy, virtual reality treatments provide repeated practise in dynamic, always changing social engagements. Because no two social encounters are ever precisely the same, there is far less emphasis on rote learning and responses throughout repeated training sessions. Furthermore, this dynamic practise performed in diverse virtual reality environments may aid in the transfer of social skills learnt in virtual reality to real-life interactions. Third, it can provide a safe space for people with autism spectrum disorders to make social blunders without experiencing the extreme anxiety or fear of rejection that is often associated with face-to-face social encounters. Virtual reality sessions give a controlled environment to match the needs of the individual, with the possibility of real time feedback to enhance the learning experience. Finally, computer technology is frequently tremendously stimulating and gratifying for people with autism spectrum disorders, particularly youngsters with high functioning autism. Overall, virtual reality provides an interesting, dynamic, and personalised platform for training and developing social cognition in children with Autism Spectrum Disorders. Although these studies indicate virtual reality as an effective platform for practising and teaching social skills to people with autism spectrum disorders, there are some limitations. In isolation, most platforms train specific subskills

of social competency (e.g., emotion recognition, spatial awareness, problem solving). Another disadvantage is that past virtual reality therapies for autism spectrum disorders did not fully address generalisation of learning to untrained assessments or real-life situations. This is frequently due to the restricted skills taught in virtual reality studies, which frequently combine one single social skill, such as emotion recognition, in a repetitive fashion.