

Developing a positive view of oneself is important for maintaining good mental health, as feeling negative about oneself increases the risk of developing symptoms such as depression and anxiety. Autistic individuals often struggle with these feelings, and both self-concept and internalizing feelings develop during adolescence. However, there is a lack of studies investigating the development of positive self-concept and self-esteem in autistic adolescents. This study examined academic, physical, and social self-concept, as well as self-esteem, in adolescent males with and without autism at both the behavioral and neural levels. It also focused on the similarities between one's own perspective and that of peers, and assessed the potential role of alexithymia (difficulty identifying and describing feelings) in developing a more negative view of oneself. Results showed that there were no group differences in self-esteem, self-concept, or underlying neural activation. This shows that autistic adolescent males use the same neural processes when they evaluate their traits. However, regardless of clinical diagnosis, a higher number of autism traits was related to a less positive physical and prosocial self-concept, whereas more difficulty identifying one's feelings was related to lowered self-esteem and less activation in medial prefrontal cortex during self-evaluations. Therefore, in treatment of autistic adolescents with low self-esteem, it is important to take into account and possibly aim to improve alexithymic traits as well.