

Co-occurring with Autism

ADHD

- Roughly 40% to 70% of Autistics are also ADHD (Rong et al, 2021; Hours et al, 2022)
- Distinct structural brain differences have been found in ADHD and autism, e.g increased fronto-temporal gray matter volume in autism and decreased orbitofrontal gray matter volume in ADHD (Lukito et al, 2020).

Intellectual Differences / Spiky Cognitive Profile

- Around 35% of Autistics identified by age 8 in the USA are intellectually disabled (IQ less than 70) (Maenner et al, 2023).
- Around 10% of Autistics have savant syndrome, and 50% of savants are Autistic (Treffert, 1999).
- About 30% of Autistics have exceptional abilities in specific areas (Howlin et al, 2009).
- Autistic savants have a different behavioral profile from other Autistics (Hughes et al, 2018)

Non-speaking / Minimally Speaking

- Around 25% - 30% of Autistics are considered minimally speaking (Rose et al, 2016)
- 20-40% have significant language difficulties (Brignell et al, 2018)

Time Perception / Dyschronometria

- Atypical time perception in Autistic individuals can be found across research literature (Casassus et al, 2019)
- Time perception and duration judgment have been found to be linked to working memory issues in Autistic youth (Brenner et al, 2014)
- Time duration judgment can sometimes be stronger in Autistics with eidetic-type memory (Wallace & Happe, 2008)

Information Processing Differences / Learning Differences

- Dyslexia: 20-40% of children with ADHD have a reading disorder; 6-30% of Autistic children have a reading disorder (Hendren et al, 2018).
- Netherlands twin study suggests co-occurrence of ADHD and dyslexia/dyscalculia probably share a common genetic cause vs causing one another (van Bergen et al, 2025).
- Dysgraphia is found in about 50% of ADHD children and 50% in Autistic children (Mayes et al, 2018).
- About 80% of Autistic children have been found to have pronounced motor difficulties. 7% self-report diagnosis of dyspraxia. (Cassidy et al, 2016).

Agnosia and Alexithymia

- Agnosia is difficulty with recognition of sensory input, including: visual (objects, faces, landmarks), spatial (distances, direction), auditory (sounds, voices), tactile (recognizing objects by touch), gustatory (taste), and olfactory (smells).
- Prosopagnosia is difficulty recognizing faces or "face blindness." No good prevalence data in autism, but studies have found some autistics perform worse on facial identity tasks than allistic controls (Weigelt et al, 2012).
- Alexithymia is difficulty recognizing and articulating emotions. About 50% of Autistics reported alexithymia on the Toronto Alexithymia Scale (Kinnaird et al, 2020)

Sensory and Auditory Processing / Synesthesia

- Auditory processing differences in 70% of Autistic children (Lau, 2023). Auditory processing disorder prevalence rates in autism is unknown.
- About 80% of Autistic children have sensory processing disorder (Patil & Kaple, 2023).
- Synesthesia is when sensory perception is intermingled, such as sounds are sensed as colors, or visual patterns are felt on the skin.

Aphantasia, Hypophantasia, Hyperphantasia

- Aphantasia is a condition in which visual imagery is absent. Hypophantasia is when visual imagery is vague or dim. Hyperphantasia is the ability to generate realistic and vivid visual images.
- There may be a connection between aphantasia and synesthesia in Autistic individuals. Aphantasics report lower sensitivity to other senses and the dimmer imagery extends to other senses as well (e.g. less vivid auditory imagery) (Dance et al, 2021).

Gender Differences

- One study found about 5% of autistic children endorsed a gender-related issue on the Child Behavior Checklist (Janssen et al, 2016).
- One study found gender-diverse individuals are about 5 times more likely to be diagnosed as Autistic and score significantly higher on self-report of autistic traits (Warrier et al, 2020).

Mental Health

- Scottish 2011 census data showed both intellectual disabilities and autism predicted poor health; ID predicted worse general health than autism, and autism predicted worse mental health than ID (Kinnear et al, 2019).
- About 80% of Autistic adults met criteria for a psychiatric diagnosis at least once in their lives compared to 30% of Allistics (Lever & Geurts, 2016). This may be related to Autistics seeking mental health services more frequently.