Schizophrenia Spectrum Disorders and Neurodevelopmental Conditions

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Evidence suggests some mental disorders are neurotypes (Woods et al., 2025). Neurodiversity refers to variations in the human brain which affect information processing, emotional states, sociability, and other mental functions. Schizophrenia spectrum and other psychotic disorders are conditions marked by delusions and other symptoms of psychosis. "Delusions are fixed beliefs that are not amenable to change in light of conflicting evidence" (American Psychiatric Association, 2022, p. 101). The Diagnostic and Statistical Manual of Mental Disorders, fifth edition, text revision (DSM-5-TR) views schizophrenia spectrum disorders (SSDs) through a pathological lens, whereas research suggests alternative perspectives which help understand symptoms, particularly delusions, differently (Flores, 2025). "Delusions are deemed bizarre if they are clearly implausible and not understandable to same-culture peers and do not derive from ordinary life experiences" (American Psychiatric Association, 2022, p. 101). From a neurodiversity-informed perspective, beliefs classified as bizarre represent attempts to explain experiences which others find hard to understand, even when those beliefs are inconsistent with objective evidence (Flores, 2025). What is clinically described as disorganized thinking reflects alternative patterns of cognitive organization, although the patterns can contribute to functional impairment. Delusion-supporting reasoning is a psychological function which helps individuals organize and interpret their experiences. The thought process a person uses to support a delusional belief is frequently considered unintelligible, but it holds meaning. A delusional belief does not align with objective evidence, but the thought process is substantive, and the psychological content holds value to the person.

People diagnosed with severe mental disorders experience various forms of stigmatization (Komatsu et al., 2021). Self-stigma is a vulnerability factor which increases the

likelihood of depressive symptoms (Oexle et al., 2017). People with SSDs who have autistic traits, including difficulties with social communication and attention switching, are more likely to develop negative beliefs about themselves. A higher percentage of patients with SSDs report symptoms of autism spectrum disorder (ASD) compared with neurotypical control groups (Komatsu et al., 2021). One meta-analysis indicates a mean incidence of 12.8% of SSDs in ASD populations (Chisholm et al., 2015). SSDs and ASD involve difficulties in social engagement and communication. A recent meta-analysis indicates people with childhood attention-deficit hyperactivity disorder (ADHD) have a higher risk of developing SSDs later in life (Scarselli et al., 2022). ASD and ADHD are neurodevelopmental conditions (NDCs) for which there are evidence-based treatments. When SSD symptoms occur in NDCs, environmental interventions are recommended as the initial approach to reduce stigmatization and improve functioning (Scarselli et al., 2022). Living in communities which overlook the stigmatization of psychiatric disorders leads to self-stigma (Komatsu et al., 2021). Self-stigma leads to internalized shame, which reduces the recovery rate of those with SSDs. Social exclusion of people with SSDs reinforces delusion-supporting reasoning (Flores, 2025).

Delusions are directly influenced by subjective experiences (Flores, 2025). The formation of delusions involves taking anomalous experiences at face value and settling on an interpretation without scrutiny. People with SSDs score high on liberal acceptance bias, dismissing evidence from alternative perspectives in favor of their own. A common trait of people with SSDs is a strong desire to share their interpretations, but they are resistant to disconfirming feedback. People with SSDs who are less accepting of feedback experience more severe psychoses. It is common for people to attempt to correct delusional ideas by revising their beliefs; however, people with SSDs do so differently (Flores, 2025).

It is difficult to find substantial data on people with SSDs because studies are usually conducted with patients in active treatment, using self-administered scales with results which are affected by clients' mental status (Komatsu et al., 2021). It is crucial for people presenting with complex signs and symptoms of overlapping NDCs to receive a complete diagnostic assessment, especially when psychotic features are apparent (Scarselli et al., 2022). A prodromal symptom of schizophrenia is inattention, and without a comprehensive assessment, inattention can be mistakenly attributed to ADHD (Gough & Morrison, 2016). Diagnosing someone with ADHD requires the onset of symptoms before the age of 12. If pervasive inattention starts in adolescence and cannot be attributed to a medical condition, a prodromal etiology of an SSD is indicated.

Not only do the symptoms of SSDs and neurodevelopmental conditions frequently occur together, but there is also an overlap of traits which are not a part of the diagnostic criteria (Chisholm et al., 2015). Theory of mind and mentalizing deficits are common to ASD and SSDs. Autistic traits resemble symptoms of SSDs. People with autistic traits have difficulty with emotional exchange in social interactions, including responding to emotions in a typical way or expressing feelings socially, which resembles a blunted affect in SSDs (Komatsu et al., 2021). Blunted affect refers specifically to reduced facial, emotional, or vocal expression. Children with ASD have delayed language development and limited speech. People with SSDs demonstrate alogia, minimal speech, brief answers, and difficulty generating conversation, all of which involve reduced speech, but their etiologies differ (Chisholm et al., 2015). Catatonic features occur in both ASD and SSDs. Catatonia involves people remaining motionless for long periods, adopting unusual postures, exhibiting reduced movement or speech, and engaging in repetitive movements, with symptoms resembling the repetitive sensorimotor behaviors of people with

autism. Although it is more commonly associated with schizophrenia, catatonia occurs in autistic individuals, adding to the traits which can resemble the negative symptoms of SSDs (Scarselli et al., 2022). There is evidence to support an independence model in which a separate diagnostic entity exists (Wood, 2017). Comorbid ASD and SSDs present differently than the two disorders alone. ASD, ADHD, and SSDs influence each other. Additional research is needed in each subgroup to develop treatment methods which address symptoms across multiple interacting dimensions rather than isolated diagnoses. SSDs and NDCs share underlying neurodevelopmental vulnerabilities, including differences in executive functioning, predictive processing, and social cognition. The shared mechanisms are expressed differently across development and environmental contexts.

Conclusion

It is important to be able to distinguish between symptoms and traits of ASD, ADHD, and SSDs because behaviors which appear similar will have different treatment pathways (Scarselli et al., 2022). To develop an effective treatment plan, a history of symptoms should be collected from multiple sources to reflect the results of cognitive or psychoeducational assessments (Gough & Morrison, 2016). Clinicians must use comprehensive evaluations, standardized testing, and DSM-5-TR-based diagnostic criteria to identify the specific factors contributing to a person's symptoms, distinguish between overlapping conditions, and develop the most appropriate treatment plan (Scarselli et al., 2022). Early intervention is important for people with SSDs, and psychotropic medication has limited short-term benefits for people with co-occurring ASD or ADHD. Those with early-onset psychosis and underlying autism are less likely to respond positively to antipsychotics compared with those without autism (Komatsu et al., 2021). There is insufficient evidence to inform pharmacological treatment of SSDs in autistic

people, despite the greater occurrence of these conditions in the autistic population (Lai et al., 2020). Antipsychotic medications remain the first-line treatment for schizophrenia spectrum disorders. Evidence suggests treatment responses differ among individuals with co-occurring NDCs, emphasizing the need for individualized treatment planning and further research (Lai et al., 2020).

From a strengths-based perspective, individuals with SSDs exhibit neurodivergent thinking and associative processes, which contribute to creativity in certain contexts (Flores et al., 2025). Associative processes vary across individuals and occur with significant cognitive and functional challenges. Recovery from SSDs involves more than symptom reduction. Recovery models emphasize meaningful participation in community life, supportive relationships, and the development of personal strengths. SSDs and NDCs are associated with a range of difficulties in temporoparietal junction processes (Carreiro et al., 2023). The temporoparietal junction is a region of the brain involved in understanding mental states of self and others (mentalization), social reasoning, and perspective-taking.

Individuals with SSDs and co-occurring ASD demonstrate cognitive rigidity, which contributes to difficulty revising strongly held beliefs. Individuals with SSDs and co-occurring ADHD may experience executive functioning difficulties which influence adaptation to changing demands. Delusions serve as a framework for organizing and explaining atypical perceptual and emotional experiences (Flores et al., 2025). The interpretations reduce uncertainty and provide psychological coherence. Cognitive inflexibility and difficulties in executive functioning contribute to clinically significant impairments. Interventions must seek to be socially inclusive to reduce self-stigma (Komatsu et al., 2021). Treatment plans must include optimizing the environment to meet the needs of people with SSDs and NDCs while managing the expectations

of their primary support through psychoeducation (Lai et al., 2020). Validation of individuals' experiences and meanings with SSDs will guide treatment, even when beliefs are inconsistent with objective evidence.

The growing evidence of overlap among SSDs and NDCs suggests categorical diagnostic parameters do not fully capture the complexity of neurodevelopmental and psychotic phenomena (Scarselli et al., 2022). SSDs, ASD, and ADHD share developmental aspects and traits, but they remain separate diagnoses. Understanding their similarities and differences is necessary for accurate diagnosis and effective treatment planning. Current evidence is limited by diagnostic heterogeneity, variability in presentation, and difficulty distinguishing overlapping traits across conditions. Future research should investigate shared developmental variables, identify subgroup-specific treatment approaches, and explore multidimensional models which integrate biological, cognitive, and social factors.

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