

# The Nuanced Landscape of Neurodevelopmental and Psychotic Disorders: A Comprehensive Guide to Distinguishing Schizophrenia, Psychosis, ASD, and ADHD

## I. Introduction to the Diagnostic Challenge

### A. The Evolving Nosology of Psychiatric Disorders

The classification of psychiatric disorders, as outlined in the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, Text Revision (DSM-5-TR)*, represents a foundational framework for clinical practice and research.<sup>1</sup> Over time, this nosology has undergone significant changes to better reflect a more nuanced understanding of mental illness. A key example is the shift from the historical Pervasive Developmental Disorder category to the unified label of Autism Spectrum Disorder (ASD), which now encompasses conditions previously diagnosed as Autistic Disorder, Asperger's Syndrome, and Pervasive Developmental Disorder-Not Otherwise Specified (PDD-NOS).<sup>3</sup> This evolution signifies a move away from rigid, siloed categories toward a more dimensional approach that acknowledges the fluidity and overlap of symptoms across different conditions.<sup>4</sup>

While the DSM-5-TR remains largely a categorical system, it increasingly incorporates dimensional elements to better capture the considerable variability in symptom profiles, treatment responses, and functional outcomes that are not fully accounted for by a simple categorical diagnosis.<sup>4</sup> The presence of cross-cutting symptom measures and disorder-specific severity scales within the DSM-5-TR reflects this ongoing effort to provide a more flexible and comprehensive assessment.<sup>5</sup> This recognition of overlapping psychopathology and a continuum of symptoms underscores the complexity of the diagnostic process and highlights why a meticulous, holistic approach is essential.

## **B. Purpose and Scope of the Report**

The primary objective of this report is to provide a detailed, expert-level guide to navigating the complex differential diagnosis of four distinct, yet frequently overlapping, conditions: schizophrenia, psychosis, Autism Spectrum Disorder (ASD), and Attention-Deficit/Hyperactivity Disorder (ADHD). This analysis will not only delineate the formal DSM-5-TR criteria for each condition but will also delve into the clinical nuances, developmental trajectories, and underlying neurobiological mechanisms that inform a more accurate diagnosis, especially in cases of comorbidity.

## **C. A Foundational Approach: The DSM-5-TR Framework**

Accurate diagnosis in mental health is a systematic process that requires more than a simple checklist of symptoms. The six-step differential diagnosis process, outlined in the *DSM-5 Handbook of Differential Diagnosis*, provides a structured framework for clinicians.<sup>6</sup> The initial steps are crucial and involve ruling out other potential causes for a patient's symptoms. This includes determining whether symptoms are a result of malingering or a factitious disorder, and, most importantly, ruling out substance use or a general medical condition.<sup>6</sup> For example, symptoms that appear to be depression could actually be due to hypothyroidism or a vitamin B12 deficiency.<sup>6</sup> Similarly, substances such as recreational drugs, alcohol, or even certain prescription medications can mimic mental health disorders.<sup>6</sup>

This systematic approach is guided by a biopsychosocial framework, which recognizes that an individual's psychological well-being is the product of a complex interplay of biological, psychological, and social factors.<sup>7</sup> By adhering to this model and the systematic steps of differential diagnosis, a practitioner can avoid a reductionistic view and appreciate the intricate web of influences contributing to a patient's clinical presentation, thereby moving beyond a purely symptom-based approach to a more nuanced, artful application of diagnostic science.<sup>7</sup>

# **II. Foundational Diagnostic Criteria (DSM-5-TR)**

## **A. Schizophrenia and the Psychotic Spectrum: Defining the Break from Reality**

Schizophrenia is a serious mental health condition characterized by a constellation of symptoms that affect a person's thoughts, feelings, and behaviors.<sup>8</sup> According to the

DSM-5-TR, a diagnosis requires the presence of at least two of the following five symptoms for a significant portion of time during a 1-month period: delusions, hallucinations, disorganized speech, grossly disorganized or catatonic behavior, and negative symptoms (e.g., diminished emotional expression or avolition).<sup>1</sup> At least one of these symptoms must be delusions, hallucinations, or disorganized speech.<sup>2</sup> The diagnostic criteria also stipulate that continuous signs of the disturbance must persist for at least 6 months, which must include the 1-month period of active symptoms. This extended period often includes a prodromal or residual phase, during which the patient's level of functioning in major life areas is markedly below their previous level.<sup>2</sup>

## **B. Autism Spectrum Disorder (ASD): The Pervasive Developmental Trait**

ASD is a neurodevelopmental disorder that impacts social communication and behavior.<sup>3</sup> The DSM-5-TR outlines two core symptom domains for diagnosis: deficits in social communication and social interaction, and restricted, repetitive patterns of behavior, interests, or activities.<sup>3</sup> The first domain includes difficulties in social-emotional reciprocity, such as trouble with back-and-forth conversation or sharing interests; deficits in nonverbal communicative behaviors like abnormal eye contact and body language; and difficulties developing and maintaining relationships beyond caregivers.<sup>3</sup> The second domain encompasses symptoms such as stereotyped or repetitive motor movements (e.g., hand flapping), echolalia, and a rigid adherence to routines and sameness.<sup>3</sup> It also includes highly restricted, fixated interests that are abnormal in their intensity or focus, as well as hyper- or hyporeactivity to sensory input.<sup>3</sup> A diagnosis of ASD requires that these symptoms be present in the early developmental period, though they may not become fully apparent until social demands exceed the individual's limited capacities.<sup>3</sup> The severity of the disorder is further classified into three levels based on the amount of support an individual requires in both symptom domains, ranging from Level 1 ("requiring support") to Level 3 ("requiring very substantial support").<sup>3</sup>

## **C. Attention-Deficit/Hyperactivity Disorder (ADHD): A Disorder of Executive Function**

ADHD is a neurodevelopmental disorder characterized by a persistent pattern of inattention and/or hyperactivity-impulsivity that interferes with functioning or development.<sup>11</sup> The DSM-5-TR specifies three presentations: Predominantly Inattentive, Predominantly Hyperactive-Impulsive, and Combined.<sup>11</sup> To meet the criteria for a diagnosis, a patient must have six or more symptoms (five or more for adolescents and adults) present for at least 6 months, with the symptoms negatively impacting social and academic or occupational

activities.<sup>11</sup>

Inattentive symptoms include a failure to give close attention to details, difficulty sustaining attention, appearing not to listen when spoken to directly, and difficulty with organization.<sup>11</sup>

Hyperactive-impulsive symptoms include fidgeting, difficulty remaining seated, excessive talking, and blurting out answers.<sup>11</sup> A critical diagnostic requirement is that several symptoms must have been present before age 12, and there must be clear evidence of clinically significant impairment in at least two major settings, such as school, work, or home.<sup>11</sup>

	Schizophrenia	Autism Spectrum Disorder (ASD)	Attention-Deficit/Hyperactivity Disorder (ADHD)
<b>Symptom Domains</b>	Delusions, hallucinations, disorganized speech, disorganized behavior, negative symptoms	Deficits in social communication/interaction; Restricted, repetitive patterns of behavior/interests	Inattention; Hyperactivity-Impulsivity (two separate domains)
<b>Temporal Requirement</b>	≥2 core symptoms (at least 1 positive) for a significant portion of a 1-month period. Continuous signs for ≥6 months.	Symptoms present from early developmental period.	≥6 symptoms (≥5 for adults) from one or both domains for ≥6 months. Onset before age 12.
<b>Functional Impact</b>	Marked decline in work, interpersonal relations, or self-care.	Clinically significant impairment in social, occupational, or other important areas of functioning.	Clinically significant impairment in ≥2 settings (e.g., home, school/work).

### III. The Art of Differential Diagnosis: Navigating Symptom Overlap

#### A. The Nexus of Psychosis and Schizophrenia

The relationship between psychosis and schizophrenia is often misunderstood. Psychosis is not a disorder in itself but rather a set of symptoms that signify a loss of grasp on reality.<sup>13</sup> A person experiencing psychosis may have disrupted thoughts and perceptions, making it difficult to determine what is real, often manifesting as hallucinations and delusions.<sup>13</sup> While psychosis is a hallmark symptom of schizophrenia, it is crucial to recognize that it can arise

from a multitude of other causes. These include other mental health conditions like severe depression and bipolar disorder, as well as substance or alcohol misuse, certain medications, or medical conditions such as dementia.<sup>13</sup> A person who experiences a psychotic episode does not necessarily have schizophrenia; a diagnosis of schizophrenia requires the presence of other specific criteria and a longer temporal duration of symptoms, often following a prodromal phase of gradual decline.<sup>13</sup>

## **B. Disentangling Schizophrenia from Autism Spectrum Disorder**

For many years, the symptomatic overlap between ASD and schizophrenia led to diagnostic confusion, with some young people with ASD being incorrectly thought to have a childhood version of schizophrenia.<sup>15</sup> Both conditions share significant social and communication deficits, including a difficulty with social interaction, impaired recognition of social cues, and a tendency toward social withdrawal and blunted affect.<sup>15</sup>

However, the core distinctions are paramount for accurate diagnosis. The most definitive differentiator is the presence of prominent delusions and hallucinations in schizophrenia, which are far less common in ASD.<sup>15</sup> The DSM-5-TR explicitly states that if a person has a history of ASD, an additional diagnosis of schizophrenia is made only if prominent delusions or hallucinations are present for at least one month in addition to the other required symptoms.<sup>2</sup> Another key distinction is the age of onset: ASD symptoms are evident from very early in life, whereas the typical onset for schizophrenia is in late adolescence or early adulthood.<sup>15</sup> Furthermore, while both groups may exhibit paranoia in social situations, the root cause differs. In schizophrenia, paranoia is often tied to fixed delusions of persecution or ill will, while in ASD, it may be a "socially cynical" response born from a history of social failures and a lack of understanding of social dynamics.<sup>15</sup>

## **C. Separating ADHD from Autism Spectrum Disorder**

The distinction between ADHD and ASD is particularly challenging due to high rates of comorbidity and symptom overlap.<sup>20</sup> ADHD is the most common co-occurring condition in individuals with ASD, with estimates suggesting that between 25.7% and 65% of children with ASD also have symptoms consistent with ADHD.<sup>21</sup> This overlap often leads to misdiagnosis, with studies finding that 30-40% of children initially misdiagnosed with ADHD are later found to have ASD.<sup>20</sup> Conversely, 10-20% of children with ADHD may be misdiagnosed with autism.<sup>20</sup>

A careful examination of the nature of the symptoms is necessary to differentiate the conditions. A primary distinction lies in their approach to routine and novelty. Individuals with ASD have a strong preference for routines and a low tolerance for change, often becoming distressed by small disruptions.<sup>22</sup> In contrast, people with ADHD may find routines boring and

often seek out newness and excitement, making impulsive decisions.<sup>23</sup> The quality of social engagement also differs: those with ADHD may be eager to socialize and talk excessively, but their impulsivity and inattention can make them ineffective communicators. Conversely, individuals with ASD may struggle with communication and prefer to be alone, appearing socially withdrawn.<sup>20</sup> Finally, while both groups can hyperfocus on interests, the nature of this focus is different. For ASD, interests are typically narrow and long-lasting, whereas for ADHD, the interests are intense but may shift quickly from one topic to another.<sup>22</sup>

## D. The Intersecting Nature of Psychosis, ASD, and ADHD

While the diagnostic criteria for these conditions are distinct, the clinical picture is often complicated by their interconnected nature. Research indicates that psychotic symptoms, even if transient and not meeting the criteria for a full psychotic disorder, are reported more frequently in individuals with ASD and ADHD than in the general population.<sup>24</sup> A study of adults with ASD found that 30.4% experienced psychotic symptoms, with 10.3% having a comorbidity with schizophrenia. Similarly, 17.2% of adults with ADHD exhibited psychosis, although none had a comorbidity with schizophrenia.<sup>24</sup> This observation suggests a shared etiological pathway between neurodevelopmental disorders and psychotic syndromes, further complicating the diagnostic landscape and underscoring the need for a comprehensive assessment that extends beyond surface-level symptoms.<sup>24</sup>

Symptom/Trait	Presentation in Schizophrenia	Presentation in ASD	Presentation in ADHD	Distinguishing Features
<b>Social Deficits</b>	Social withdrawal, poor rapport, diminished emotional expression, lack of spontaneity (negative symptoms).	Deficits in social-emotional reciprocity, abnormal eye contact, difficulty with relationships.	Difficulty with social skills due to impulsivity, inattention; may seek social interaction but struggle to maintain it.	Quality of social difficulty: negative symptoms vs. developmental deficit vs. executive function deficit.
<b>Repetitive Behaviors</b>	Grossly disorganized behavior, catatonia, agitation, bizarre posture, useless and excessive movement.	Stereotyped or repetitive motor movements (e.g., hand flapping), echolalia, rigid routines, ritualized behaviors.	Fidgeting, hyperactivity, squirming, difficulty being still.	Schizophrenia behaviors are often bizarre or goal-less. ASD behaviors are ritualistic or stereotyped. ADHD behaviors are motoric, restless, and

				driven by impulsivity.
<b>Inattention/Focus</b>	Poor attention, difficulty sustaining attention; often a prodromal symptom.	Hyperfocus on restricted, fixated interests; difficulty shifting attention away from preferred activities.	Difficulty sustaining attention in tasks; easily distracted; avoids tasks requiring sustained mental effort.	Schizophrenia's inattention is part of a broader cognitive decline. ASD's hyperfocus is intense but non-impulsive. ADHD's inattention is pervasive and due to executive dysfunction.
<b>Core Psychotic Symptoms</b>	<b>Definitive:</b> Delusions, hallucinations, disorganized speech, paranoia.	<b>Rare:</b> Psychotic-like experiences may occur but are not true delusions or hallucinations. Paranoia is "socially cynical."	<b>Rare:</b> Transient psychotic symptoms may occur but are not a defining feature of the disorder.	<b>Presence of true delusions and hallucinations is the key differentiator for schizophrenia.</b>

## IV. The Developmental Trajectory and Chronological Framework

### A. Early Onset: Signs of ASD and ADHD in Childhood

The age of symptom onset and the developmental trajectory of a condition are powerful diagnostic tools. Signs of ASD can be observed very early in life, often within the first 12 months. Early indicators may include limited or no eye contact, a lack of joyful facial expressions, or no response to one's name by 9 months of age.<sup>25</sup> Some children with ASD may even meet developmental milestones until around 18 to 24 months before they stop gaining new skills or lose previously acquired ones.<sup>26</sup> Similarly, symptoms of ADHD, while often diagnosed around preschool or kindergarten, must have been present before the age of 12 for a formal diagnosis to be made.<sup>11</sup>

### B. The Prodromal Phase of Psychosis: The Road to Schizophrenia

## Onset

In contrast to the early developmental onset of ASD and ADHD, schizophrenia typically emerges in late adolescence or early adulthood, with the usual onset between ages 16 and 30.<sup>13</sup> However, the journey to a full-blown psychotic episode is often preceded by a prodromal phase, a period of functional decline and the gradual emergence of attenuated or subclinical symptoms.<sup>14</sup> During this time, an individual may experience vague, nonspecific symptoms such as social withdrawal, a drop in academic or occupational performance, irritability, and trouble sleeping.<sup>8</sup> Because these early indicators can be easily mistaken for normal teenage angst or other conditions like depression or anxiety, they represent a significant diagnostic pitfall.<sup>8</sup>

Research has shown that this prodromal period is marked by a subtle but measurable cognitive decline. Studies have found that individuals who later develop schizophrenia often exhibit lower scholastic achievement scores before age 16 and show a widening gap in cognitive performance relative to their peers over time.<sup>29</sup> This pre-morbid decline in function, which occurs before the onset of the defining psychotic symptoms, is a crucial developmental marker of the underlying neurobiological processes of schizophrenia and provides a powerful way to distinguish its trajectory from the lifelong, non-declining developmental path of core ASD and ADHD symptoms.<sup>29</sup>

## C. The Evolving Clinical Picture Across the Lifespan

The clinical presentation of these disorders is not static. ADHD symptoms, for example, can change over time. While hyperactivity often fades as a person ages, inattention and impulsivity may persist into adulthood.<sup>12</sup> Conversely, while ASD is considered a lifelong condition, individuals may learn to develop compensatory strategies to manage their symptoms, sometimes masking the full extent of their challenges as social demands increase later in life.<sup>10</sup>

	Autism Spectrum Disorder (ASD)	Attention-Deficit/Hyperactivity Disorder (ADHD)	Schizophrenia
Age of Onset	Early developmental period (often signs by 12 months)	Symptoms must be present before age 12	Typically late adolescence or early adulthood (mid-to-late 20s)
Key Early Signs	Limited eye contact, lack of response to name, lack of gestures,	Pervasive hyperactivity, impulsivity, or	Prodromal phase of functional decline, social withdrawal,



	loss of previously acquired skills.	inattention; often diagnosed around preschool/kindergarten age.	trouble sleeping, and a drop in scholastic performance.
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# V. Underlying Neurobiological and Genetic Mechanisms

## A. Shared and Distinct Genetic Architectures

A foundational understanding of these disorders requires an appreciation for their shared genetic and neurobiological underpinnings. ASD and ADHD are both highly heritable, and studies have revealed a strong genetic overlap between them.<sup>22</sup> Beyond these two conditions, a burgeoning field of research suggests a more profound connection across a range of psychiatric disorders. A landmark study identified 109 genetic "hot spots" shared across eight different psychiatric conditions, including ASD, ADHD, and schizophrenia.<sup>33</sup> These "pleiotropic" variants, which influence multiple seemingly unrelated traits, are active for a longer duration during brain development and affect genes whose proteins are highly interconnected.<sup>33</sup> This suggests that a single genetic variation can create a widespread "ripple effect" of neurobiological disruption, leading to the overlapping symptoms and high rates of comorbidity observed across these distinct disorders.<sup>33</sup>

## B. The "Diametric" Hypothesis: A Divergent Neurodevelopmental Path

While shared genetic links explain some of the overlap, a provocative hypothesis known as the "diametric model" proposes that ASD and schizophrenia are fundamentally opposite conditions at a neurobiological level.<sup>34</sup> This model suggests a continuum of social-brain development, with autism representing a state of hypodevelopment and schizophrenia a state of dysregulated overdevelopment.<sup>35</sup>

Multiple lines of evidence support this framework. Neuroimaging studies, for example, show that ASD is associated with developmentally-enhanced brain overgrowth, while schizophrenia is characterized, on average, by reduced brain growth.<sup>34</sup> At the genomic level, certain shared genetic loci show a reciprocal effect, where a deletion in a specific chromosomal region may be linked to schizophrenia, while a duplication in the same region is associated with an increased risk for autism, and vice versa.<sup>34</sup> This suggests that the same genes, when disrupted in opposing ways, can lead to diametrically opposed neurodevelopmental outcomes.<sup>34</sup> A

behavioral correlate of this hypothesis is found in the "rubber hand illusion" experiment, where individuals with ASD show a reduced susceptibility to the illusion (representing under-embodiment), while those with schizophrenia show an increased susceptibility (representing over-embodiment).<sup>36</sup>

## C. Neurochemical Pathways and Functional Brain Connectivity

Beyond the diametric hypothesis, both ASD and schizophrenia exhibit shared neurobiological abnormalities. Research reveals common patterns of altered gray and white matter volumes, imbalances in excitatory and inhibitory neurotransmission, and dysregulation of neural circuits in both conditions.<sup>19</sup> Both clinical groups also show underactivity in brain regions that process social information, which helps to explain their shared difficulties with social perception and interaction.<sup>15</sup>

	ADHD in ASD	Psychosis in ASD	Psychosis in ADHD	Shared Etiology
<b>Prevalence</b>	Most common comorbidity, affecting 25.7-65% of children. <sup>21</sup>	Rates as high as 34.8-60%. <sup>24</sup> 3-6x more common than in the general population. <sup>17</sup>	Comorbidity with schizophrenia up to 44.4% in adults. <sup>24</sup>	Pleiotropic genetic variants <sup>33</sup> , shared neurodevelopmental pathways, and prenatal risk factors. <sup>21</sup>
<b>Symptom Quality</b>	Overlapping symptoms include hyperactivity, impulsivity, and inattention. <sup>20</sup> Misdiagnosis is common. <sup>20</sup>	Psychotic symptoms, such as delusions and hallucinations, can be reported, often transient. <sup>24</sup>	Psychotic symptoms can occur, often transient. <sup>24</sup>	A shared underlying etiology may contribute to both neurodevelopmental and psychotic symptoms. <sup>24</sup>
<b>Genetic/Neurobiological Links</b>	Strong genetic overlap. <sup>31</sup> Shared deficits in attention and executive function. <sup>31</sup>	Both share common genetic risk factors and neurodevelopmental pathways. <sup>17</sup>	Genetic risk for neuropsychiatric conditions linked to attention issues and psychotic experiences. <sup>39</sup>	The "diametric" hypothesis suggests reciprocal genetic and neurobiological mechanisms. <sup>34</sup>

## VI. Clinical Assessment, Treatment, and the

# Implications of Misdiagnosis

## A. A Systematic Framework for Differential Diagnosis

The complexity of these conditions necessitates a systematic and comprehensive approach to clinical assessment. This process, which combines the "science" of diagnostic criteria with the "art" of clinical practice, must incorporate a thorough biopsychosocial assessment.<sup>7</sup> Essential components include gathering a detailed client history, obtaining collateral information from multiple sources (e.g., parents, teachers, spouses), and direct behavioral observation.<sup>7</sup> A key step in this process is the initial rule-out of substance use and general medical conditions that may be mimicking symptoms.<sup>6</sup> The skilled application of this knowledge to the unique presentation of each individual is what ultimately leads to an accurate diagnosis.<sup>7</sup>

## B. Treatment Considerations for Comorbid Presentations

Treatment for these conditions often involves a combination of pharmacological and therapeutic approaches tailored to the individual's needs.<sup>40</sup> For patients with comorbid ADHD and a psychotic condition, such as schizophrenia, treatment is particularly complex. Stimulants, the most common pharmacological treatment for ADHD, are typically viewed with caution as they can potentially worsen psychotic symptoms.<sup>42</sup> The current recommendation is to first treat the psychosis to clarify which symptoms are attributable to the psychotic illness and to establish a baseline for evaluating the effectiveness of later ADHD treatments.<sup>42</sup> The diametric model offers a compelling explanation for this clinical complexity. The hypothesis posits that treatments designed for one disorder might inadvertently push the patient along the "diametric" spectrum toward the opposite condition.<sup>43</sup> For example, studies suggest that antipsychotic drugs, used to treat schizophrenia, may cause a patient to exhibit more "autistic" traits due to their opposing effects on brain development and neurochemistry.<sup>43</sup> This dynamic may explain why treatments for comorbid cases can be less effective and have more side effects, as a medication that addresses one disorder may exacerbate symptoms of the co-occurring condition.<sup>22</sup> Therefore, a holistic, patient-centered approach that carefully balances these factors is critical for achieving optimal outcomes.

## C. The Profound Impact of Misdiagnosis

The high rates of misdiagnosis between these conditions have profound consequences for individuals and their families. When a person is misdiagnosed, they may receive inappropriate

treatments, such as being given an antidepressant for an underlying bipolar disorder, which can worsen their symptoms.<sup>44</sup> This not only delays effective care and contributes to significant emotional and financial strain but also erodes trust in the healthcare system.<sup>44</sup> The realization that symptoms were misunderstood can lead to feelings of betrayal, confusion, and self-doubt, which may cause a person to delay or avoid future medical care, potentially leading to a worsening of their condition.<sup>45</sup>

## **VII. Conclusion**

### **A. The Interconnected Nature of Neurodevelopmental and Psychotic Disorders**

The diagnostic landscape for schizophrenia, psychosis, ASD, and ADHD is characterized by significant complexity and interconnectedness. These conditions are not isolated clinical silos but are deeply linked at symptomatic, developmental, and biological levels. While schizophrenia is defined by the presence of core psychotic symptoms, the distinction between it and ASD or ADHD is often blurred by a high degree of symptom overlap and comorbidity. A comprehensive diagnosis hinges on a careful analysis of the specific symptom quality, a patient's entire developmental and chronological history, and an appreciation for the subtle, pre-morbid indicators of decline that may herald a psychotic illness. The emerging understanding of shared etiological factors, such as pleiotropic genetic variants, and the opposing neurodevelopmental paths proposed by the diametric hypothesis, provides a powerful scientific framework for explaining the clinical challenges observed in practice.

### **B. The Path Forward for Clinical Practice and Research**

Moving forward, effective clinical practice requires a holistic approach that extends beyond the traditional symptom checklist. Clinicians must gather a thorough developmental and collateral history, systematically rule out confounding factors, and integrate knowledge of the latest neurobiological research to inform a precise diagnosis. For researchers, the path forward involves further investigation into the shared and distinct etiological pathways that link these disorders. This knowledge is essential for developing more targeted and effective treatments that can navigate the delicate balance of comorbid presentations, ultimately leading to improved quality of life and outcomes for those affected.

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