

Catatonia in Autism Spectrum Disorders

Catatonia is characterized by repetitive movements, mutism, posturing, and frantic agitation. These signs are also frequent in autism yet usually do not amount to a diagnosis of catatonia unless there is a sharp and sustained increase of these symptoms lasting days or weeks.

Catatonia is a complex neuro-psychological disorder which refers to a cluster of abnormalities in movement, volition, speech and behavior. In its extreme form, it is manifested as absence of speech (mutism), absence of movement (akinesia) and maintenance of imposed postures (catalepsy). Lesser degrees of these impairments, and various other abnormalities of posture, movement, speech and behavior, are also considered to be catatonic phenomena.

Historically, the term catatonia has been associated with schizophrenia and psychoses, but it is now recognized that it can occur with a range of conditions, including autism spectrum disorder (ASD). Studies suggest that between **12-18% of individuals on the spectrum may present with varying levels of catatonia-like deterioration**. Although overlapping or shared symptoms (e.g., mutism, echolalia, stereotypic speech and repetitive behavior) can present a diagnostic challenge, differences in age-of-onset between catatonia and ASD can help to discriminate between the two similar symptom profiles. Specifically, the age-of-onset of catatonic regression is typically observed at a later age than symptoms of ASD and occurs most often during adolescence and young adulthood. Stressful life events, loss of routine, interpersonal conflicts, anxiety and depression, and side effects of psychiatric medication may precipitate catatonia in adolescents and teens on the spectrum.

Although the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) does not recognize catatonia as a separate disorder, it is included as a specifier for ASD to indicate the presence of comorbid (co-occurring) catatonia. The DSM-5 recognizes that it is possible for individuals with ASD to experience a marked deterioration in motor symptoms and display a catatonic episode with symptoms such as mutism, posturing, grimacing, and motoric immobility.

Symptoms of Catatonia in Autism

Early identification and diagnosis is critically important as autism-related catatonia can result in marked stress to families and can have a deleterious effect on the quality of life of the individual. Symptoms can progress to acute catatonia which is extremely difficult to treat and lead to total immobility, dependence on all aspects of daily living, and become life-threatening. Unfortunately, autistic catatonia is infrequently identified at an early stage, and often misdiagnosed and mistreated. Clinicians may not recognize the onset and gradual presentation of catatonic-like deterioration rather than the full-scale catatonic stupor state which is more easily identified and familiar to most mental health practitioners. Co-morbid catatonia should be considered as a possible diagnosis for an individual on the autism spectrum who shows a change in pre-existing symptoms and a marked and obvious deterioration in: (a) movement; (b) volition; (c) level of activity; (d) speech; and (e) a regression in self-care, practical skills and independence compared to previous levels.

Specific indicators of an onset of autism-related catatonia may include any of the following:

- increased slowness and freezing during actions
- inability to eat or drink / slow eating or drinking (dehydration common)

- increase in repetitive non-goal-oriented movements and hesitations
- negativism that is unplanned and purposeless
- motiveless resistance to instructions or attempts to move
- difficulty in crossing thresholds and completing movements
- marked reduction in speech or complete mutism
- difficulty initiating actions
- tendency to act in opposite ways, presence of opposing behavior tendencies
- increased reliance on physical or verbal prompts for functioning
- increase in repetitive and ritualistic behaviors
- grimacing, odd gait, and stiff, locked postures
- impulsivity, bizarre behavior, excitement, and purposeless agitation
- fixed eye gaze, little visual scanning
- uncontrollable destructive movement and unprovoked destructive movement
- focal hand dystonia that interferes with the ability to write
- spasmodic dystonia causing the voice to sound broken, hoarse, or have reduced volume
- verbigeration – repeating meaningless phrases, i.e., end of sentences
- waxing and waning severity of behaviors within the span of a day
- painful constipation

It is important to know that these are NOT under voluntary control.

Treatment

There is very little research evidence to guide medical treatment of catatonia in autistic people. The studies which are published on the treatment of catatonia in autism spectrum disorders (ASD) are mainly single case studies using various psychiatric medications or electroconvulsive therapy (ECT) for cases with acute catatonic stupor. The quality of the studies is poor and there is no convincing evidence that any particular medication or ECT is effective for catatonia type breakdown. The studies also ignored the side-effects of these treatments and rarely reported long term follow-up of effects. Drastic treatments such as ECT and/or high doses of lorazepam should only be tried as a very last resort in cases of severe catatonia which is life-threatening.

There is some evidence that a psychological treatment approach, co-occurring with medical treatment, is useful when catatonic symptoms in ASD become chronic, particularly for parents and caregivers. This non-medical treatment is based on a comprehensive psychological assessment which focuses on identifying stressful life event(s), locating and eliminating any potential causes such as psychiatric medications, and restructuring the environment to effectively reduce the source(s) of the stressors. The main aspects of this approach include the following:

- early identification of possible indicators
- psycho-education to promote understanding of the condition, in particular to caregivers, professionals and service providers
- searching for and eliminating any possible causes such as psychiatric medications
- assessment of the person's autism and their vulnerability to stress
- identification of stress factors which may include environmental, lifestyle, and psychological
- reducing and eliminating stress factors which may include changes in the environment, daily program, increased staffing and support, etc.

- providing verbal and physical prompts to overcome movement difficulties, modeling desired behavior
- maintaining and increasing activities which the person enjoys or has done so previously, i.e., music therapy and dance
- providing external stimulation and motivation at appropriate levels to keep the person engaged and responsive and active
- increasing structure and predictability and occupation.

This approach is based on findings that stress, anxiety, and side effects of psychiatric medication are the main causes of catatonia-like breakdown (Wing & Shah, 2000). The use of prompts as external stimuli and physical activities, especially routine and structure are emphasized. This psychological approach can be helpful used with or independently of medical treatments.

Conclusion

Catatonia is a terrifying existence, not a peaceful state of oblivion. It is important to recognize and diagnose autism-related catatonia as early as possible so that treatment and symptom management can be implemented. Thus, it is critically important for clinicians, autism professionals, educators, parents and caregivers to be aware of the symptoms of catatonia-like deterioration in teens and adults on the autistic spectrum. Catatonia should be assessed in any individual with ASD when there is a change in pre-existing symptoms and an obvious and marked deterioration in movement, pattern of activities, self-care, and practical skills, compared with previous levels, through a comprehensive diagnostic evaluation of medical and psychiatric symptoms. Possible physical or psychological causes should be investigated and treated. There is some indication that screening for catatonic features and providing early support might reduce later incidence of catatonic deterioration in people with ASD.

Key References & Further Reading

[Network Autism.org, Good Practice, Evidence base, Catatonia and Catatonia-type breakdown in autism](#)

DeJong, H., Bunton, P., & Hare, D. (2014). A Systematic Review of Interventions Used to Treat Catatonic Symptoms in People with Autistic Spectrum Disorders. *Journal of Autism & Developmental Disorders*. Vol 44: 2127-2136.

Dhossche, D., Shah, A., & Wing, L. (2006). Blueprints for the Assessment, Treatment, and Future Study of Catatonia in Autism Spectrum Disorders. Catatonia in Autism Spectrum Disorders. *International Review of Neurobiology* Vol 72 P.268-283. Elsevier Inc. USA.

Fink, Max. (2009). Catatonia: A Clinician's Guide to Diagnosis and Treatment. Cambridge University Press

Fink, Max. (2013). Rediscovering catatonia: the biography of a treatable syndrome.. Wiley Online Library, Volume 127, Issue 441, pages 21-47.

Shah, A. & Wing, L. (2006). Psychological Approaches to Chronic Catatonia-Like Deterioration in Autism Spectrum Disorders. Catatonia in Autism Spectrum Disorders. *International Review of Neurobiology* Vol 72 P.245-260. Elsevier Inc.