

AUTISM SPECTRUM DISORDER: AYURVEDIC ASPECT

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ABSTRACT

Autism spectrum disorder (ASD) is a behavioural and developmental disorder characterized by delayed or absent language development, repetitive behaviours, and significantly impaired non-verbal communication, imagination, and social interaction. These symptoms typically manifest during early childhood. In India, the prevalence rate of ASD is 1.2%, and this rate increases year by year. Although ASD is considered non-curable, *Ayurveda* offers some hope for children with the condition. *Ayurveda* provides a detailed description of neurological disorders and their management, though ASD is not specifically mentioned by any Acharya. However, many features of *Unmaad* in *Ayurveda* are similar to those of ASD. *Unmaad* is characterized by impairments in *Manas* (mind), *Buddhi* (cognitive function), *Sangya Guna* (perception), *Bhakti* (desire/interests), *Sheela* (personality/activity), *Cheshta* (motor activity), and *Achara* (conduct).

INTRODUCTION

Autism is a primary concern in modern pediatric care. Autism, or Autism Spectrum Disorder (ASD), encompasses a broad range of neurodevelopmental disorders characterized by impairments in social skills, speech, and non-verbal communication, along with unusual repetitive or severely limited activities and interests. Autism Spectrum Disorder is not mentioned in any of the major *Ayurveda* texts. However, its majority of clinical features resemble features of *Unmada*, a disease of *Manovahi Srotasa*. In *Ayurveda*, pathogenesis of Autism can be understood as any imbalance in the form of *bhramsa* (aberration) of *dhi*, *dhti* or *smrti*, whether collectively or singularly due to indulgence in unwholesome action, termed as *pragyaparadha* which leads to *sarvadosa prakopa* and various types of derangements in *buddhi* as well as in physiological functioning and ultimately it becomes an important causative factor of the disease. In 2016, an estimated 62 million cases of ASD worldwide reflected a prevalence rate of 0.83%.^[1] ASD accounted for over 9 million Years Lived with Disability and 121 Disability Adjusted Life Years per 100,000 population globally.^[2] In the U.S., the CDC reported about 1 in 59 children with ASD in 2014, up from 1 in 69 in 2012, with males four times more likely to be diagnosed.^[3] ASD is found across all racial, ethnic, and socioeconomic groups. In India, estimates of ASD prevalence vary from 0.15% to 1.01%. The INCLIN study reported 1 in 125 children aged 3-6 years and 1 in 85 children aged 6-9 years with ASD, with regional prevalence rates ranging from 0.1% in tribal

areas to 1.01% in urban areas.

OBJECTIVE OF THE STUDY

To study literature review of Autism Spectrum Disorder through *Ayurveda*.

MATERIAL AND METHODS

All relevant *Ayurvedic* and modern science literature along with internet databases is referred for study. A literature review to evaluate the effect of *Ayurveda* modalities, modern medicines, association of biochemical parameters, other interventions in Autism.

LITERATURE REVIEW

Definition of *Unmada*

The term "*Unmada*" translates to "*samudbhrama*," indicating perversion or disturbance.^[4] In *Unmada*, there is a degradation of *Buddhi* (intellect), *Manas* (mind), and *Smriti* (memory), leading to what is termed "*Unmada*" or insanity. The definition of *Unmada* reveals impairments in mental faculties, mirroring aspects observed in Autism Spectrum Disorder (ASD).^[5]

Etiopathogenesis of *Unmada*

विरुद्धदुष्टाशुचिभोजनानि प्रघर्षणं देवगुरुद्विजानाम् ।

उन्माद हेतुर्भयहर्षपूर्वो मनोऽभिघातो विषमाश्च चेष्टाः ॥ (च.चि.9/4)

The manifestation of *Unmada* involves vitiated *Doshas* (*Vata*, *Pitta*, *Kapha*) alongside derangement of *Manas Doshas* (*Rajas* and *Tamas*).

Dietary Causes: Aharaja Nidana

Unhealthy dietary habits include consuming Tamasika Ahara, which involves unhygienic or stale food, overeating, unhealthy cooking practices, and irregular meals, as well as Rajasika Ahara, characterized by the intake of caffeinated beverages, alcohol, and excessively spicy foods. Additionally, consuming foods that do not align with Ayurvedic dietary guidelines, such as unwholesome junk and processed foods, while avoiding nutritious options, and lacking healthy fats like ghee and milk in the diet contribute to poor health.

Lifestyle Causes: Viharaja Nidana

Imbalances in health can arise from physical inactivity, excessive sleeping, and irregular sleep patterns, while engaging excessively in entertainment and social media and neglecting responsibilities can lead to mental imbalance. Smoking, substance abuse, and stressful activities further disrupt mental harmony, and emotional triggers such as fear, envy, despair, desire, anger, and sorrow can disturb mental balance. Additionally, life events like the loss of loved ones, job changes, or severe illnesses can significantly impact mental health.

Manasika Nidana

Inability to control emotions such as *Bhaya*, *Irshya*, *Dainya*, *Lobha*, *Kama*, *Krodha* and *Dukha* may upset the mental balance. Life events such as mental trauma due to loss of family members, job, onset of severe illnesses etc.

Sadvritta Apalana

Not following the codes of conduct mentioned in Ayurveda for healthy living.

Avara Satva

People born with *Heena Satva* (mentally weak), are more prone to imbalances in mind. People with predominance of *Rajas* and *Tamas* in mind compared with *Satva* have more probability to get psychological imbalances.

The dietary and psychological stress factors described in *Unmada* are similar to what we find in ASD.

Samprapti (pathogenesis) of Unmada

तैरल्पसत्त्वस्य मलाः प्रदुष्टा बुद्धेनिवासं हृदयं प्रदूष्य ।

स्रोतांस्यधिष्ठाय मनोवहानि प्रमोहयन्त्याशु नरस्य चेतः ॥ (च.चि.9/5)

The imbalance of Doshas (both physical and mental) caused by unhealthy dietary habits, lifestyle practices, and other triggering factors leads to an upward movement of vitiated elements through the channels of *Manovahasrotas*. This upward movement affects the heart (*Hridaya*), which houses intellect (*Buddhi*), and disrupts the mind by blocking the channels of *Manovahasrotas*.^[6] Consequently, the consciousness (*Chitta*) becomes disturbed, resulting in a loss of discernment (*Buddhi*), leading the individual to engage in inappropriate actions. This disturbed mental state is known as *Unmada*.

Similarities of Features of Vatika Unmada and ASD

Features of Vatika Unmada ^[7]	Features of ASD
• Constant wandering	• Restless, unable to sit still
• Improper or inappropriate movement of eyes, eyebrow, lips, shoulder, jaws, fore-arms and legs	• Repetitive stereotyped movements of hand and eyes.
• Constant and incoherent speech	• Monotonous speech, Oddity in speech
• Salivation	• Drooling of saliva, sucking of fingers
• Always smiling, laughing, dancing, singing, and playing with musical instruments in inappropriate situations	• Exhibits odd and bizarre behavior, often boisterous, and screams inappropriately. Fond of music and dance.
• Loudly imitating the sounds of lute, flute, conch	• Impaired speech, meaningless utterance of words or sound, constant humming
• Riding on non-vehicle toys or objects	• Inability to process information leading to absent or deranged understanding of things like not able to have meaningful play with a toy
• Liking for adoration by strange ornaments	• Inability to relate with things, odd behavior
• Disliking for food articles and also a strong desire not to part with the eatables available	• Eating disorder (selective eating / overeating)

Features of *Kaphaja Unmada* having resemblance with ASD are described below

Features of <i>Kaphaja Unmada</i> ^[8]	Features found in ASD
<ul style="list-style-type: none"> Staying in one place/ prefer to stay lonely 	<ul style="list-style-type: none"> Prefers to be alone, Withdrawal from surrounding, prefer solitary activities
<ul style="list-style-type: none"> Observance of silence 	<ul style="list-style-type: none"> Does not try to communicate by words or gestures, shows few social reactions to others
<ul style="list-style-type: none"> Reduced physical activity 	<ul style="list-style-type: none"> Listless, sluggish, inactive, never moves spontaneously
<ul style="list-style-type: none"> Salivation and nasal excretions 	<ul style="list-style-type: none"> Drooling of saliva, running nose
<ul style="list-style-type: none"> Aversion to Mwards food 	<ul style="list-style-type: none"> Eating disorder
<ul style="list-style-type: none"> Love for solitude 	<ul style="list-style-type: none"> Seeks isolation from others, pays no attention when spoken to
<ul style="list-style-type: none"> Increased sleep 	<ul style="list-style-type: none"> Inactive

Features of *Paittika Unmada* having resemblance with ASD are described below

Features of <i>paittika Unmada</i> ^[9]	Features found in ASD
<ul style="list-style-type: none"> Intolerance/irritation 	<ul style="list-style-type: none"> Irritable and whiny, resist any form of physical contact, don't wait for his turn while playing turn-based games
<ul style="list-style-type: none"> Anger 	<ul style="list-style-type: none"> Cries over minor annoyances, temper tantrums/outbursts
<ul style="list-style-type: none"> Inflicting injury to self or others 	<ul style="list-style-type: none"> Aggressive to other children or adults (verbally or physically), injures self on purpose
<ul style="list-style-type: none"> Excitability on inappropriate occasions 	<ul style="list-style-type: none"> Impulsive, stamps feet or bangs objects, or slam doors, disrupts group activities
<ul style="list-style-type: none"> Running 	<ul style="list-style-type: none"> Constantly runs or jumps around the room, does not stay in one place during meal, lesson or learning periods
<ul style="list-style-type: none"> Having fondness for shade, cold water and food 	<ul style="list-style-type: none"> Inclination towards water
<ul style="list-style-type: none"> Continuous state of anguish 	<ul style="list-style-type: none"> Depressed mood, does not pay attention to instructions

ETIOPATHOGENESIS OF AUTISM AS MODERN SCIENCE

Autism is a neurodevelopmental disorder with an unknown etiology. Its primary characteristics include impairments in social interaction, communication, imagination, and the presence of restricted interests and repetitive behaviors. Childhood autism typically manifests between 18 to 24 months of age and is well-established by 3 years. According to the World Health Organization, 1 in 160 children worldwide has Autism Spectrum Disorder (ASD). Recent data from the Autism and Developmental Disabilities Monitoring (ADDM) Network of the Centers for Disease Control and Prevention (CDC) indicate a 15% increase in prevalence, with 1 in every 59 children in the United States being diagnosed with ASD. This condition is approximately four times more common in boys than in girls. These statistics underscore the urgent need for scientific evaluation of autism.

The exact cause of autism remains unknown. However,

potential contributing factors include genetic influences, various environmental factors, perinatal brain injury, and hormonal imbalances. Neuro-radiological and neurochemical studies have also suggested abnormalities in brain structure and function. Despite these findings, results from various studies are often conflicting, and there are no specific diagnostic imaging or tests for autism. Previously, emotionally distant parenting styles (refrigerator mothers) and the MMR vaccination were thought to be causes of autism, but current evidence does not support these theories.

CONCLUSION

Ayurvedic Samhita provides a comprehensive explanation of psychiatric disorders. This ancient knowledge is valuable for diagnosing and managing Unmad (which can be correlated to autism) in the modern era. In Ayurveda, Unmad is characterized by symptoms and behavioral patterns similar to those observed in autism. The Ayurvedic approach includes neuro-protective medications and Panchakarma

therapies, which have shown promising results in treating this condition. These treatments not only address the symptoms but also improve overall well-being, paving the way for further research into Ayurvedic methods for managing autism.

This review article aims to delve into the details of Unmad as described in Ayurveda and draw correlations with autism. By examining the Ayurvedic concepts and treatments, the article seeks to highlight how ancient practices can be effectively integrated into contemporary approaches to autism management. The focus is on presenting a detailed analysis of Unmad, exploring its symptoms, causes, and treatments, and demonstrating the potential benefits of incorporating Ayurvedic therapies into modern psychiatric care.

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