



A CONTEXT TO SEROTONIN THEORY ON MANOVAHA STROTAS AND IT'S VIKARA

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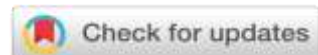
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ABSTRACT

A healthy individual is one whose *Aatma* (soul), *Indriya* (senses), and *Mana* (mind) are all in a state of happiness and whose body's *Dosha*, *Agni*, *Dhatus*, and *Mala kriya* (physiological functions of excretions, etc.) are all in an equilibrium. The root cause of all diseases can be attributed to three factors: *Asatmaindriyarthā Samyoga* (overuse, underuse, or inappropriate use of sensory faculties), *Prajnaparadha* (intellectual blasphemy), and *Parinama* (time). The primary causes of mental disorders in the present period are *Raja and Tama*, which are within our grasp. Among the nine *Karan Dravyas*, *Mana* is called an "*Amurta dravya*". *Manasvikara* are recognised in this context as contributing elements to psychosomatic disorders. Ayurveda has prescribed a daily routine in a very particular manner, known as *Dinacharya*. Adhering to the correct *Dinacharya* can help us combat negative lifestyle variables, stress, anxiety, and depression with great effectiveness. The most well-known function of serotonin as a neurotransmitter is its ability to regulate brain activity and aid concentration. Research has shown that serotonin may also have a role in major depressive disorders, anxiety disorders, and schizophrenia **Methodology-** The material in this paper is drawn from classic works of *Ayurveda* with easily understood commentary, a textbook of modern medical sciences, and other articles to help understand the concepts of *Manovaha strotas*, *Manovikara*, and the physiology and characteristics of the hormone serotonin, how it works, the role it plays in our body, and how its level can be increased. **Result -**The ultimate state of mental and emotional balance is *Satva*; *Alpa satva* can result in various forms of *Manovikara*. Serotonin levels must be balanced to restore physiological

changes and initiate the body's healing process. Thus, this article aims to comprehend the role of serotonin in *Manovikara*.

Keywords: *Satva, Manovaha Strotas, Manovikara, Serotonin*

INTRODUCTION

Ayurveda uses the idea of good physical and mental health to promote and preserve health and prevent and treat disease. The baggage of maintaining wealth and prosperity throws a man into the ocean of endless thinking, which ultimately disturbs a person's mental health. While stating the *Avayawa* (organs) *Utpatti* in '5' th month of pregnancy, *Mana* is objectified' which indicates the coexistent nature of mind and body⁽¹⁾ In *Ayurveda*, the mind is considered a dual organ, sensory and motor in nature, so the disease of the mind is affecting both mind and body. *Acharya Charaka* has described that the beginning of all the diseases is *Manas-vikara* only, the leading cause of *Adharma*(2). There are two predominantly psychological Doshas, "*Rajas* and *Tamas*" Persons with high *Rajas* and *Tamas* are prone to mental disturbances. Modern Mental illness encompasses a broad spectrum of mental health issues that impact mood and behaviour, such as anxiety disorders, depression, schizophrenia, compulsive behaviours, eating disorders, and addictive behaviours. ⁽⁴⁾ Life, according to *Ayurveda*, is a conglomeration of the four interdependent components, namely, the body (*shareera*), the sensory & and motor faculties (*Indriya*), the mind (*Sattva*) & and the soul *Atma* ⁽⁵⁾. A person with *Swastha mana, Prasanna aatmendriya, Sama dosha, Sama agni, Sama dhatu & Sama kriya* is perfectly healthy. "समः दोष समग्निश्च सम धातुमल क्रिया | प्रसन्न आत्मेन्द्रिय मन स्वस्थ इत्यग्निधीयते|| (Su. Sut 15/10) *Mana is Ubhayatmaka* i.e. it is a dual faculty which has both sensory & motor functions & hence considered as a superior faculty because it controls & co-ordinates all other faculties connecting them with the soul⁽⁶⁾ In today's era of rate and race, we and society are under the influence of *Rajas* and *Tamas*. Every human being who is running for survival is facing some mental or psychological disturbance. Individuals and communities face problems and miseries due to intellectual errors.

Modern drugs promote relaxation by blocking awareness of a stressful event or diminishing the importance attached to it. In contrast, the *Ayurvedic* approach makes one realise the situation and adapt suitably to solve the stress problem refreshingly forever. Serotonin, or 5-hydroxytryptamine (5-HT), is a neurotransmitter sometimes called the happy chemical feel-good hormone. It has an integral physiological role in the human body; it regulates behaviour, mood, memory, and gastrointestinal homeostasis. ⁽⁷⁾ It carries messages between nerve cells in the brain and throughout our body. Serotonin and serotonin receptors are essential in the regulation of virtually all brain functions, and dysregulation of the serotonergic system has been implicated in the pathogenesis of many psychiatric and neurological disorders. ^(8,9) About 90% of serotonin is found in the cells lining the gastrointestinal tract. It's released into the blood circulation and absorbed by platelets. Only about 10% is produced in the brain, and it plays a vital role in the aetiology of mental disorders. Lack of enough serotonin is thought to play a role in depression, anxiety, mania, obsessive-compulsive disorder, and other *Manovikaras*. Hence, Serotonin is considered a first line in pharmacologic management found in many parts of the human body, including the digestive system, blood platelets, and the CNS. From the above data, we can conclude that there is an urgent need to prevent and manage psychic disorders. *Ayurveda, through its holistic approach*, can be helpful for the management of psychological disorders.

PREVALENCE

Anxiety, worry, disappointment, and depression are common among people in today's modern, urbanised world with high expectations for life. India had 197.3 million mental health illnesses in 2017, of which 45.7 million had anxiety disorders, and 44.9 million had depressive disorders.^[10] One in seven Indians were

affected by a mental disorder in 2017. India is one of the three countries, along with China and the USA, with the highest rate of depression and schizophrenia:⁽¹¹⁾

AIM

In the present study, an attempt is made to understand the role of serotonin in *Manovikara*.

METHODOLOGY

The material in this paper is drawn from classic works of *Ayurveda* with easily understood commentary, a textbook of modern medical sciences, and other articles to help understand the concepts of *Manovaha Strotas*, *Manovikara*, and the physiology and characteristics of the hormone serotonin.

Mana and Serotonin

"Chittam cheetah Hridayam svantam hrnmanasam manah iti" (*Amarkosha-1/4/3*) says the mind is the entity through which knowledge is received, and the seat of *Mana* is *Hridaya* (heart). Learning is closely tied to *Atma* (soul), by which one can see. It is known as *Ubhayatmaka* (combined psychomotor entity) because it is related to both *Jnanendriya* (sensory centre) and *Karmendriya* (motor centre). *Manovaha Strotas* was cited by authors like *Charaka* and *Sushruta* when discussing mental illnesses like epilepsy and insanity, even though they did not include it in their internal sources. The **"feel-good" or "happy" hormone** is a common moniker for serotonin, which is a naturally occurring neurotransmitter that allows the body to interact by sending "messages" from nerve cell to nerve cell. It is sometimes referred to as 5-hydroxytryptamine or 5-HT. Everyone has heard that neurotransmitters may have an impact on emotions when suffering from anxiety or depression. Additionally, research suggests that serotonergic activity could be linked to anxiety disorders. Every person has a different level of serotonin produced in the body from an amino acid called tryptophan. Tryptophan is made in the body by reducing stress levels, having sunlight, exercising, and eating a diet containing beans, meat, eggs, fish, and almonds.

Guna of Mana (Qualities of Mind).

Mana has two properties: "*Anutwa*" and "*Ekatwa*." *Anutwa*: minuteness, *Ekatwa*: unity

Knowledge is solitary; there is only one instance at a time. *Mana* can only focus on one sense organ at a time and cannot view two or more things simultaneously. Refraining from concentrating on a single thing or blocking out anyone's *vishaya* or object may be odd. It shows up as signs of melancholy, anxiety, ADHD, and other ailments. The *Ayurvedic* texts mention three additional *Manasik Gunas*: *Tama*, *Raja*, and *Sattva*. Their explanation can be found in three different kinds of mental responses. *Raja* and *Tama* are also called *Manasik Doshas* because they are known to create sickness.

Mano Artha (Objects of Mind)

1. *Chintya* - Thing required to think about to do or not to do in an objectified manner.
2. *Vicharya* - Critical analysis is enough to direct the mind in the right direction or otherwise.
3. *Uhyam* - Logical thinking or speculation or conjecture about a thing.
4. *Dhyeya* - Fixation of fluctuating mind towards aim or knowledge.
5. *Sankalpa* - A thing about which merit and demerit are considered.

Karma of Mana (Action of mind)

1. *Indriyabhigraha* - Perception and motor control
2. *Swanigraha* - Self-control
3. *Uhya* - Hypothesis
4. *Vicharya* - Thought

Manovaha Strotas and Mental Health

Ayurveda provides excellent explanations of *Mana's* roles and activities. However, *Strotoviman* does not describe *Manovaha Strotas*. We are referred to *Manovaha Strotas* in both *Chikitsasthana* and *Charak Indriyasthana*. *Acharya* mentioned *Moolsthana* of *Manovaha Strotas* as a *Dasha Dhamani* and a *Hridaya*. According to *Charaka*, *Manovaha Strotas'* primary site is *Budhirniwas Hridaya*. *Manovaha Strotas* are conduits that distribute impulse and supply *Chetana* throughout the body. According to its *Moolsthana*, the brain is regarded in *Ayurveda* as *Hridaya*. We can comprehend the relationship between *Hridaya* and the brain because it is the brain that sends and receives commands (motor function) and information (sensory function).

The mind's activity is embodied in the mana functions described by *Charakacharya*, which include self-control, self-restraint, hypothesis, and consideration. There is no psychological, cognitive, or intellectual role to the heart. Thus, *Mana* and its location can be thought of as a brain. Also, serotonin is produced in the brain and has a specific role in controlling mood and maintaining *Manovikara*. The feeling of happiness, calmness, emotional stability, and more focus is brought when serotonin levels are in the typical range. The National Alliance on Mental Illness states that a variety of causes, such as alterations in the brain, life experiences, and medical problems, can lead to mood disorders, obsessive-compulsive disorder, and other behavioural disorders. Practically every aspect of human behaviour is influenced by serotonin. Due to long-term stress and lack of natural light exposure, *Manovaha Strotas* get hampered, leading to less production of serotonin, which shows the following **Modifications in behaviour:**

- Memory problems
- Trouble focusing or studying.
- Hyperactivity
- Sleeplessness

- Demanding reassurance
- Unwanted thoughts, including aggression.

Manas Rog Nidan

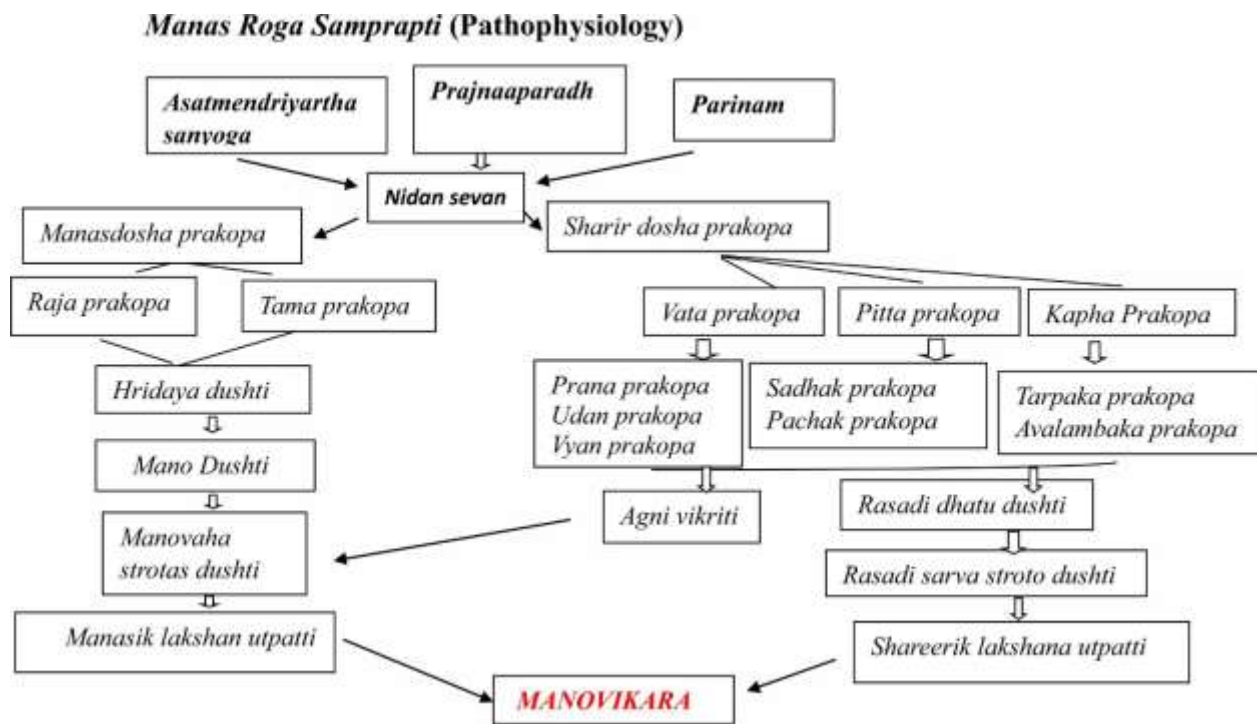
1 Asatmendriyartha sanyoga -Improper contact of *Indriya* (sense organs) with their *Artha* (objects) ⁽¹²⁾.

The mind plays a vital role in perception and knowledge. It is the mediator between the senses (objects) and the soul. Therefore, proper sensory and motor inputs the mind feels are essential for developing and nourishing the mind.

2. Prajnaaparadh - *Prajna* (*Budhhi*) and *Aparadh* (offence), i.e., harmful actions done by a person against wisdom cause various types of improper physical action and mental disorders.

3. Parinam -.*Parinam* also referred to as *Kala*, i.e., natural, artificial, or physical transformation against time

Another *Nidan* for *Manas Vikaras* is an imbalance of **Raja and Tama Gunas**. In today's transcendental society, humans have become mechanised, less productive, and rat racers, which contribute to more production of *Kama*, *Krodha*, *Lobha*, *Bhaya*, *Shoka*, *Chinta*, and *Irsha* like *Manas Vikaras*.



Nidan intake by *Alpa Satwa Vyakti* results in an imbalance of *Sharirik* and *Manasik dosha*, which takes refuge in *Hridya* and causes *Manovaha strotas dusti*. Vitiating causes metabolic disturbances and somatic disturbances, respectively. Vitiating *Mana* generates

vitiating of *Vata, Pitta, Kapha*, and vice versa, producing pathologies. In a physiological limit, it makes manasic *bhavas*, but when it crosses the limit, it causes *Manasik Roga*.

Classification of Manovikara (Mental disorder)

Manoadhistita manovikara (pure psychic origin), *Ubhayadhistita manovikara* (psychosomatic origin), *Nanatmaja manovikara* (originate due to tridosha)

<i>Nanatmaja</i>	<i>Ubhayatmaka</i>	Others
Anxiety disorder	<i>Unmada</i> (Psychosis)	<i>Sanyasa</i> (coma)
<i>Vishada</i> (depression)	<i>Apasmara</i> (Epilepsy)	<i>Kamaja jwar</i> (fever caused by passion)
<i>Ashabdasevan</i> (Auditory hallucination)	<i>Atavabhinivesha</i> (psychic Perversion)	<i>Krodhaj war</i> (fever caused by anger)
<i>Bhrama</i> (confusion)		<i>Bhayajatisara</i> (diarrhea caused by fear)
<i>Manovikara</i> (Senile psychosis)		

Resemblance of Manovikara with Low serotonin level

1. Avyathit Chitata (Manic depression): A cyclical mood illness characterised by periods of mania or hypomania interspersed with major depressive episodes.

- Atypical chattiness.
- Reduced demand for rest.
- Prolonged engagement in hazardous activities.

2. Mano-sangharsha (Neuralgia): Also known as *mano Nadi daurbalya* or *Mano-daurbalya*.

- The patient is still anxious and angry because of mental weakness.
- The patient is self-centred and constantly thinks about himself.

3. Manogranthi (Obsessive-compulsive neurosis): Causes the patient to develop an intense want to act and finish their activity.

It affects men and firstborn children more frequently.

- Fear of contamination or dirt
- Aggressive or horrific thoughts
- Checking, Counting, Ordering

4. Mano-avsada (Depression) :

- Loss of interest or pleasure
- Reduction in focus and decision-making abilities
- Persistent suicidal or death-related thoughts

5 . Chittodvega (Anxiety): This condition is marked by a feeling of impending doom or irrational concern coupled with tense muscles—arousal of the autonomic nervous system, difficulty concentrating, restlessness, and overly concern about unimportant things.

And an "on edge" feeling.

All the symptoms of *Manovikara* resemble signs of low serotonin levels in the body from consuming Vit.B6, vit. D, omega-3 fatty acids, and serotonin levels should be boosted.

The best ways to boost serotonin.

- Spending time in nature
- Keeping your gut microbiome happy
- Practicing gratitude
- Indulging in self-care
- Exercising and meditating
- Eating nutritious and healthy food
- Getting ample sunlight every day
- Drinking mood-boosting herbs
- Giving a massage to yourself
- Spending quality time with loved ones

RESULT

To cure a patient completely, a good physician should try to connect with his soul or subtle body. By doing so, they can restore physiological changes and activate the body's healing process. Serotonin is not just a neurotransmitter that is necessary for mood

regulation. In most human organs, it controls many physiological and pathophysiological processes. Adhering to *achar Rasayana* and *Sadvritta* fundamentally boosts immunity. It relaxes the mind by elevating ineffective or decreased serotonin activity, which is believed to be a critical factor in the development of anxiety, sadness, and other psychological diseases. Ultimately, serotonin plays a crucial role in the present period in preventing and curing the underlying causes of a variety of *Manovikaras*.

DISCUSSION

The fast-changing globalised environment, unhealthy lifestyle choices, and stress-related issues are all contributing factors to the daily rise in mental illnesses in today's society. Indeed, without mental health, there can be no health. It contributes to psychological well-being and is essential to a high quality of life. Thus, each person should try to maintain a high level of serotonin. *Vata Dosha* primarily controls the actions, whereas *Sadhaka Pitta* and *Avalambaka Kapha* control them. *Manovaha strotasa* originates in the heart and travels throughout the body via *Dasha Dhamani*. *Rasavaha Strotas* and *Manovaha Strotas* are closely related. A confused mind results in different *Manovikaras* when *Rajas* and *Tamas* obstruct *Manovaha Strotas*.

The growth and development of the mind through appropriate nutrition for the body and mind and maintaining harmony among all the elements listed in life's journey are necessary to preserve and protect mental health. There is little evidence to establish a link between serotonin and ADHD. Still, there is evidence that physical and intellectual illnesses of the body are associated with one another, which provides evidence of an association between the serotonergic system and MDD. Rather than acting as a simple pro- or anti-analgesic, serotonin acts on multiple levels of the nervous system to both potentiate and inhibit nociceptive processing. Melatonin, a substance that aids in controlling the body's sleep-wake cycle, is derived from serotonin. Problems with sleep may affect serotonin function, which may lead to the emergence of anxiety, sadness, and other nervous

health disorders. Because of its impact on mood, serotonin is one of the numerous brain chemicals essential to general well-being. Serotonin's effect on mood is also why it's often a target of medications that are used to treat depression, anxiety, and other mood disorders⁽¹³⁾. Mental health conditions can alter serotonin function, and patients can overcome *Manovikara* by enhancing the daily routine that increases serotonin activity. This implies a connection between mental health and serotonin.

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