

MENTAL HEALTH ISSUES POST COVID-19 AND POTENTIAL ROLE OF AYURVEDIC MANAGEMENT IN CHILDREN

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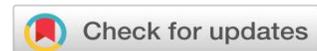
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ABSTRACT

The fight with COVID -19 pandemic seems nowhere near the end and is extremely daunting. An upsurge in cases of mental illness in India post the pandemic is a clear indicator of its scary impact. The horrific pandemic led to an unprecedented situation of nationwide lockdown in many countries including India. Children and adolescents are having to cope with significant anxiety, stress, and disruptions in their daily lives as a result of COVID-19 and pandemic response efforts, including school closures and increased social isolation. These stressors pose a serious challenge to mental health and well-being both in the short term and in the coming months and years. Hence, this paper is aimed at discussing the potential impact of this pandemic on children's mental and physical health and the role of Ayurveda in it.

Keywords: COVID -19; neuropsychological effects; Panchakarma

INTRODUCTION

Due to the alarming levels of spread and severity all over the world, WHO declared the COVID-19 a pandemic [1]. Following the concern of increased cases and severity along with its declaration as a pandemic, officials of governments all over the world

took drastic measures along with imposing lockdown during the pandemic to reduce the spread of the virus [2] Although lockdown proved to be effective to reduce the spreading of the virus, there's been another rising concern in the form of the behavioral,

emotional, psychological, and neurological effect of lockdown as well as worsening of the pre-existing neurological disorders in this pandemic among the children [3,4].

Aims and Objective-

- To address the influence of the COVID-19 pandemic on the mental health of the children
- Conceptual study of the *Manovikara* w.r.t. *Vishada*(depression), *Chittodwega* (anxiety), and *Aswapna* (insomnia) in the present scenario.
- An approach to propose a pragmatic plan of Ayurvedic intervention for the mental health consequences.

3. Impact on children's Mental health-

Schools for more than 168 million children globally have been completely closed for almost an entire year due to COVID-19 lockdowns in 2020. Upon imposing the lockdown, there had been reports of the occurrence of anxiety, depression, irritability, inattention, mood swings, somatic problems, obsessive-compulsiveness, poor sleep quality, and thought problems in children ranging from 1.5 to 18 years of age. From this perspective, there are several factors that influence the physical and mental health of children and adolescents experiencing the stress inherent in a pandemic, such as isolation itself, school shutdown, reduced social life and physical activities, changes to routine, sleep difficulties, exposure to disharmony at home, excessive screen use, unhealthy diet, and others.

3.1 Infants, Toddlers, and young children –

May show backward progress in skills and developmental milestones. They may also have increased problems with –

1. Fussiness and irritability, startling and crying more easily, and being more difficult to console.
2. Trouble falling asleep and waking up more during the night.
3. Feeding issues such as nausea and vomiting, constipation and loose stools, or new complaints of stomach pain.
4. Being anxious when they have to separate from their family, clinginess, not wanting to socialize and fear of going outside.

5. Hitting, frustration, biting, and more frequent or intense tantrums.
6. Bedwetting after they are potty trained.
7. Aggressive behavior.

3.2 Older children and adolescents-

May show signs of distress with symptoms such as:

1. Changes in mood that are not usual for your child. Such as ongoing irritability, feelings of hopelessness or rage, and conflicts with friends and family.
2. Changes in behaviour such as stepping back from personal relationships.
3. A loss of interest in activities previously enjoyed.
4. A hard time falling or staying asleep or starting to sleep all the time.
5. Changes in appetite, weight, or eating patterns such as never being hungry or eating all the time.
6. Problems with memory, thinking, or concentration.
7. Less interest in schoolwork and a drop in academic efforts.
8. Changes in appearance, such as lack of personal hygiene.

4. Increased use of digital technology-

The use of smartphones and other technologies during the pandemic has increased noticeably due to quarantine and nowhere to go [5]. Increased technological usage during the pandemic has its positive and negative impacts, depending on the usage. As much as smartphones are a way of escaping loneliness in lockdown, they are also responsible for causing serious mental illnesses including depression, anxiety, sleep irritability, and cognitive impairment.

4.1 Neurological changes in children-

Neuroplasticity refers to the structural and functional changes in the brain caused by neuron development with time leading to the experience-dependent change [6]. The connection between neurons increases more rapidly in childhood than in adulthood, which is why early experiences have a huge impact on brain development [7]. The use of technology affects the neuroplasticity in children and adolescents resulting in change that might be transient or permanent [8]. Early infancy and adolescence are crucial years for brain

growth and reorganization; thus, experiences and environmental variables can have a significant impact on future brain functioning [9,10]. Excessive exposure to the screen can influence brain development in negative ways [11], it can increase the risk of cognitive, behavioural, and emotional disturbances in adolescents and young adults (or the risk of dementia in old age).

5. Ayurveda and Manas-

Satva, *Atma*, and *Shareera* are called *Tridanda*, a strong support system of the body.[12] The medical system successfully since ancient times was well aware of the importance of the mind. The definition of *Swastha Purusha* by Sushruta includes *Prasanna atmaindriya Mana* which means that the mind, soul, and senses contribute to human health.[13] *Tamas*, *Rajas*, and *Satva* are the three *Gunas* of the mind, if the balance is lost between them the pathology begins. Charaka's view of life is based on the paradox of the interconnected world. This can be determined by *Sharira* (body), *Indriya* (senses), *Satva* (mind), and *Atma* (Complete consciousness). *Vishada* and *Chittodwega* are grouped under *Vataja Nanatmaja Vikaras*. [14] *Nidra* are the total of *Tamo Bhava* and *Kapha dosha* and involves *Manas* in its manifestation [15]. *Nidra* is also one of the *Trayoupastambha* which is essential for a healthy life. The features of *Vishada* can be correlated to depression and *Chittodwega* with anxiety disorders, *Aswapna* with insomnia. For all the *Manovikaras*, *Gyana* (Atmagyana, knowledge of the self), *Vigyana* (Shastragyana), *Dhairya* (Dheerata, Courage), *Smriti* (Smaranashakti, Memory) and *Samadhi* (focusing on oneself, not the thoughts created by own) are the five important treatment principles.[16] Thus, a critical study of the classics offers certain clinically useful treatment principles and descriptions pertaining to the treatment of *Manasa vikaras* in Ayurveda.

6. Management

- The Ayurvedic treatment involves correction or balancing of *Tarpaka kapha*, *sadhaka pitta*, and *prana vayu*, the *doshas* present in the brain.
- Nootropic herbs: following herbs have possible action on psycho-neurological deficits; Vacha,

Brahmi, Shanka pushpi, Jatamansi (*Nardostachys Jatamansi*, Vacha (*Acoruscalamus*). These may act as a mild stimulant and sedative also depending on what mood state needs to be balanced.

- Panchakarma procedures- *Abhayanga*, *Shirodhara*, and *Shiro Pichhu*.

6.1 Behavioral therapy (*Satvavajayachikitsa*):

Satvavajaya involves a process of counseling and empowerment of the individual. some protocols adopted for treating these types of patients includes:

1. Counseling to the parents, family members, teachers, and the child itself is of great help in treating as well as preventing Anxiety and stress in patients.
2. The use of medicines which have properties of cognitive function along with Meditation or Yoga.
3. It is assisted with the daily diet regulation and making the sleep timetable of an affected child. Diet should be of nutritional balance, on the proper time, avoiding excess oil and spice, rich in antioxidants and immunity boosters.
4. Sound sleep and a good amount of water intake are also a must.
5. Scalp massage (*Shiro abhyanga*), and massage of the soles of feet with sesame oil are also beneficial in decreasing irritability.
6. Daily work should be listed and overcoming problems (e.g., during writing) should be handled one by one and slowly.
7. Daily use of Cow's ghee, cod-liver oil is playing a good role to develop brain activities and prevent the development of stress.

6.2 Medhya Rasayana -

Shankhpushpi – *Convolvulus prostratus* Forssk.

1. Triterpenoids, Flavanol glycosides, anthocyanins, and steroids may be responsible for Shankhpushpi nootropic and memory-enhancing properties.
2. Psychostimulant, tranquilizer, reduces mental tension, brain tonic in hypotonic syndromes, induce a feeling of calm and peace, relief in anxiety neurosis, stress, mental fatigue, modulation of the neurochemistry of the brain, prominent memory improving drug.[17]

Jyotishmati – *Celastrus paniculatus* Willd.

1. The mechanism by which *Jyotishmati* enhances memory and cognition may be due to increased acetylcholine levels in the brain.
2. The seed oil is used for stimulating intelligence, sharpening memory, and improving IQ in mentally retarded children.
3. The seed oil improves the sensory and motor systems of the brain.
4. *Jyotishmati* is rich in anti- [6] oxidants that help in stress management.[18]

Jatamansi – *Nordostachys jatamansi* Don.

1. The sedative sesquiterpene Valera none is the major component of root essential oil.
2. It is used to increase mental powers and sharpen the intellect.
3. It acts as a natural nervine tonic and a memory booster.
4. It relieves stress by inducing calming and relaxation effects.
5. It prevents neurological degeneration due to its neuroprotective action.[19]

Brahmi – *Bacopa monnieri* L. Wettst.

1. Triterpenoids, Flavanol glycosides, anthocyanins, and steroids may be responsible for Shankhpushpi nootropic and memory-enhancing properties.
2. Psychostimulant, tranquilizer, reduces mental tension, brain tonic in hypotonic syndromes, induce a feeling of calm and peace, relief in anxiety neurosis, stress, mental fatigue, modulation of the neurochemistry of the brain, prominent memory improving drug.[20]

Shatavari – *Asparagus racemosus* Wild

1. *Shatavari* is a body and cerebrum rejuvenator and is brilliant for the mind.
2. *Shatavari* is high in Saponins and Shatavarins which have antioxidant abilities.
3. It is used to treat depression by impacting the neurotransmitters associated with depression.
4. It prevents aging, increases longevity, improves mental function, and is also used in nervous disorders and neuropathy.[21]

6.3 Panchkarma procedures -

a. *Abhyanga* (oilation therapy)

Abhyanga is the process of application of plain / medicated oil or *Sneha Dravya* over the body with massage.[22] *Snehana* therapy is useful for promoting strength, nourishment (bulk), and vitality (energy) to the deficient part and particular required area of the body. The *abhyanga* with medicated oils i.e., Chandanādi, Mahanarayana, and Bala provides stimulation to the nervous system and improves sensory-motor integration. Improves concentration, prevents memory loss, and reduces stress and stress-related disorders.

b. *Shirodhara*

Shirodhara is a type of *Murdha taila* [23] (Application of oil to the head/ scalp) in which prescribed medicated oil/ liquid is continuously poured over the forehead and then allowed to flow over the scalp from a specific height for a certain period. Mahanarayana and Bala are more effective in treating. It reduces the level of stress hormones such as adrenaline and noradrenaline and thus relaxes the mind and thereby helps in relieving stress and tension. It also helps in alleviating different types of psychomotor ailments like stress, depression, anxiety, etc.

6.4 Dietary management-

Proper nutrition is essential for growing children, and children who eat a diet high in “junk food” in early childhood are more likely to exhibit irritability and other childhood behavioral disorders; this may also reflect a long-term nutritional imbalance.[24] So it is advised to the parents that refined, carbohydrates, sugars, and processed foods containing additives should be eliminated from the diet.

CONCLUSION

Ayurvedic therapy is the most effective natural treatment for all psychiatric problems. Ayurvedic scriptures are rich in information about proper behaviour, thinking, action, response, and proper diet and lifestyle. As a result, good mental equilibrium is critical to an individual's well-being. It not only cures the disease but also provides long-term benefits for

chronic illness. In Ayurveda, it may be correlated to *Unmad* (insanity) disease which is *Vatika Vikara*. So, the line of treatment according to *Vatika* disorders such as neuro-protective medications along with Panchakarma therapies have definitely shown outcome on the disease and thus pave the way to further research in employing Ayurvedic methods towards the management of mental health issues caused due to covid -19 pandemic. This field of study remains obscurity and needs a lot to be done.

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