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Impact of Excessive Screen Time on *Manovaha Srotas*: An Integrative Ayurvedic Review

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Abstract:

The rapid advancement of digital technology and increased screen exposure have significantly influenced human lifestyle, behavior, and mental health. In *Ayurveda, Manovaha Srotas* refers to the channels responsible for mental functions and psychological processes. These channels encompass functional elements at the chemical, electrical, neurological, hormonal, and cellular levels, facilitating internal communication and metabolic exchange within the body and mind. Excessive digital screening, including prolonged use of smartphones, computers, televisions, and social media platforms, may disturb the normal functioning of *Manovaha Srotas*, leading to mental and emotional imbalance.

Continuous exposure to digital screens contributes to stress, anxiety, sleep disturbances, reduced concentration, irritability, and emotional instability. *Ayurveda* correlates these manifestations with the aggravation of *Rajas* and *Tamas doshas,* which adversely affect mental clarity and emotional stability. Improper sensory engagement *(Asatmya Indriyartha Samyoga)* caused by excessive visual and auditory stimulation further vitiates the mind and nervous system. Additionally, sedentary habits associated with excessive screen use negatively impact physical health and overall well-being.

This study aims to evaluate the impact of digital screening on *Manovaha Srotas* through *Ayurvedic* principles and modern psychological perspectives. It emphasizes the importance of balanced digital exposure, healthy lifestyle practices *(Dinacharya),* meditation, *yoga*, adequate sleep, and mindful use of technology in maintaining mental health. Integrating Ayurvedic preventive measures with modern digital hygiene practices may help minimize the adverse effects of excessive screen exposure and promote holistic well-being.

Key words: *Manovaha Srotas*, *Manas*, *Triguna,* Screen Time, Mental Health, Digital Stress

INTRODUCTION:

The digital revolution, while enhancing connectivity and productivity, has inadvertently increased screen dependency across all groups.[1] Prolonged exposure to smartphones, computers, and other digital devices has been associated with a spectrum of psychological disturbances.[2] In *Ayurveda*, such disturbances can be understood through the vitiation of *Manovaha Srotas*, the channels governing mental activities.

Classical texts describe *Hridaya* and *Dasha Dhamani* as the roots of *Manovaha Srotas*, emphasizing the interconnectedness of mental and physiological processes. Excessive sensory stimulation *(Atiyoga of Indriyas),* particularly visual and cognitive overload from screen, disrupts the equilibrium of *Manas,* leading to *Raja's* predominance followed by *Tamas* aggravation.[3]

From a modern standpoint, excessive screen time affects neural pathways, sleep cycles, and emotional regulation, contributing to increasing cases of anxiety, depression, and behavioral disorders.[4] This necessitates an integrative understanding combining *Ayurvedic* wisdom with contemporary neuroscience.

Aims and Objectives:

1. To analyze the impact of excessive screen time on *Manovaha Srotas* from an *Ayurvedic* perspective
2. To correlate *Ayurvedic* concepts with modern neuropsychological mechanisms associated with excessive screen exposure.

MATERIALS AND METHODS:

This study is a conceptual and integrative review aimed at understanding the impact of excessive screen time on *Manovaha Srotas* through *Ayurvedic* and modern scientific perspectives.

classical *Ayurvedic* references related to *Manas, Triguna, Manovaha Srotas, Prajnaparadha*, *Asatmya Indriyartha Samyoga, Satvavajaya Chikitsa,* and *Manasika Dosha* were collected from authoritative Ayurvedic texts including *Charaka Samhita, Sushruta Samhita,* and *Ashtanga Hridayam* along with their commentaries.

Relevant scientific literature regarding screen time, digital addiction, anxiety, depression, behavioural changes, sleep disturbances, circadian rhythm disruption, and neuropsychological effects of prolonged digital exposure was reviewed from indexed journals and electronic databases including PubMed and Scopus.

The collected data were critically analyzed and interpreted using *Ayurvedic* principles of *Dosha, Guna, Srotas,* and modern neuropsychological mechanisms associated with excessive screen exposure.

REVIEW OF LITERATURE:

CONCEPT OF MANAS IN AYUEVEDA:

Ayurveda explains health as a balanced state of *Sharira* (Body), *Indriya* (Sense organs), *Manas* (Mind), and *Atma* (Soul).[5] Among these, *Manas* has a very important role because it controls thinking, emotions, memory, behaviour, understanding, and psychological balance. Classical *Ayurvedic* texts explain that even if the sense organs are normal, proper knowledge and perception cannot occur without the involvement of *Manas*.[6] Therefore, *Manas* acts as a connecting link between *Atma, Indriya*, and *Buddhi* and helps in proper mental and emotional functioning.[7]

The word *Manas* is derived from the *Sanskrit root "man",* which means "to think" or "to know".

मन्यते ज्ञायते अनेन इति मनः [8]

This means that Mans is the faculty through which thinking, understanding, and perception occur. *Ayurveda* also describes *Manas* as an *Ubhayendriya* because it performs both sensory and motor functions.[9] It helps in receiving knowledge through the senses and also in generating responses and actions.

The concept of *Manas* in *Ayurveda* is mainly based on *Sankya* and *Vaisheshika Darshana.* According to *Sankhya* philosophy, *Manas* acts as an instrument of consciousness and is responsible for thinking, memory, reasoning, emotional control, and behaviour. *Ayurveda* explains that the mind plays an important role in maintaining both physical and mental wellbeing.[10]

Mano Vishayas

चिन्त्यं विचार्यमूह्यं च ध्येयं सङ्कल्प्यमेव च □[11]
यत्किञ्चिन्मनसो ज्ञेयं तत्सर्वमर्थसंज्ञकम् □□

Ayurvedic literature describes *Mano Vishayas* such as *Chintya* (thinking), *Vicharya* (analysis), *Uhya* (logical reasoning), *Dhyeya* (concentration), and *Sankalpa* (decision making). These functions resemble higher mental functions described in modern science such as attention, planning, memory, emotional control and judgement.

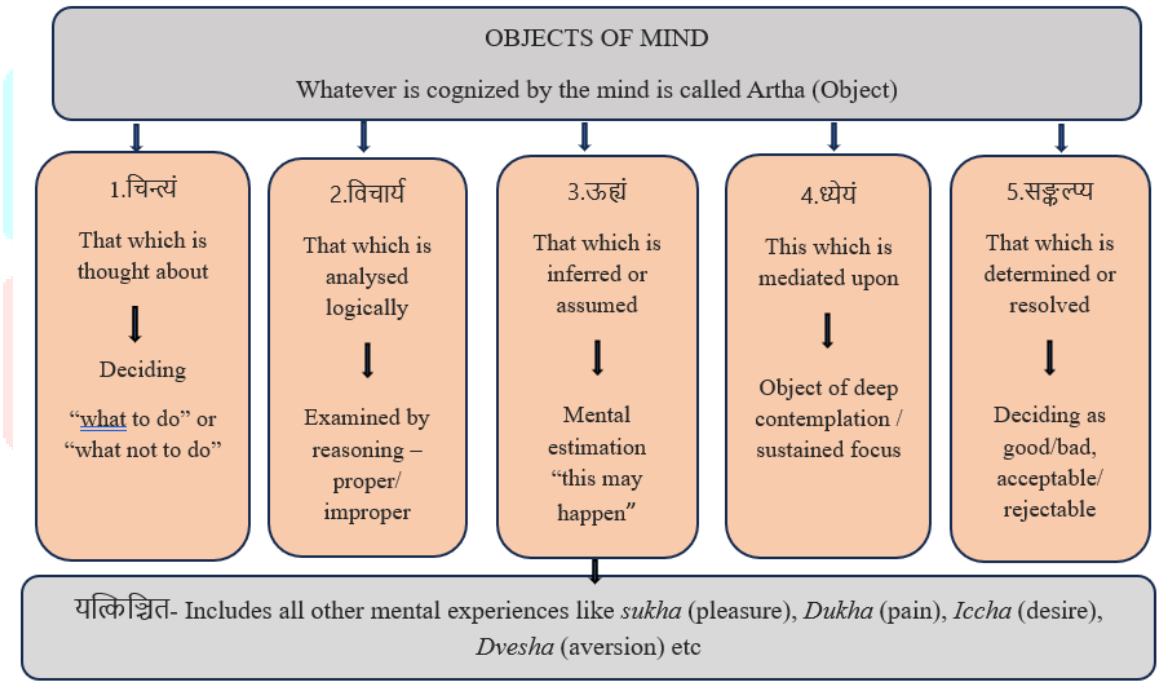


Chart No:1.0

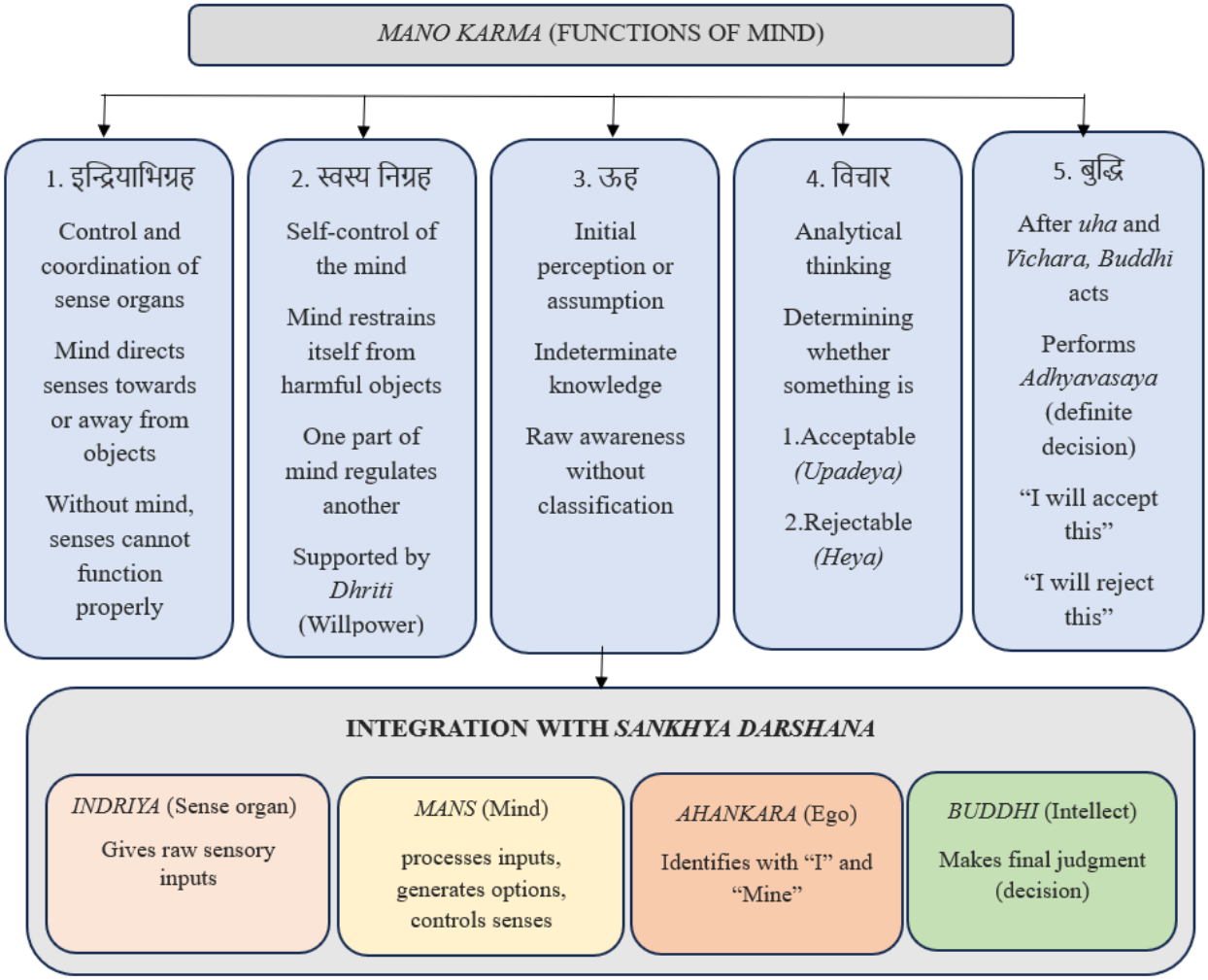
Another important reference from *Charaka* explains the controlling function of *Manas,* stating that *Manas* controls the sensory organs, supports self-control, thinking, and analysis, and assist proper functioning of Buddhi.[12] Therefore, balanced Manas is very important for emotional stability and healthy behaviour.

इन्द्रियाभिग्रहः कर्म मनसः स्वस्य निग्रहः □ऊहो विचारश्च ततः परं बुद्धिः प्रवर्तते □[12]

Ayurveda explains that the mind is controlled by three *Gunas- Satva, Rajas,* and *Tamas*. *Satva* is responsible for mental clarity, peace, emotional balance, concentration, and wisdom. *Rajas* causes overactivity, restlessness, anger, impulsive behaviour, and anxiety, whereas *Tamas* produces dullness, confusion, laziness, lack of motivation, and depressive thoughts. *Charaka* clearly sates:

रजस्तमश्च मनसो द्वौ च दोषावुदाहृतौ ॥ [13]

This means that *Rajas* and *Tamas* are the *Doshas* of *Manas* and are responsible for mental disturbances when aggravated. Proper balance of these *Gunas* is essential for good mental health



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CONCEPT OF MANOVAH SROTAS:

The channels responsible for mental activities are called *Manovaha Srotas*.[5] The term is made up of *Manas* (mind), *Vaha* (carrying), and *Srotas* (channels). These channels help in the regulation of thinking, emotions, memory, behaviour and coordination between sensory and mental functions.

Charaka describes the *Mulasthana* of *Manovaha Srotas* as:

मनोवह स्रोतांसि हृदयं दश च धमन्यः [5]

According to this reference, *Hridaya* and *Dasha Dhamani* are the root structures of *Manovah Srotas*. *Hridaya* is considered the seat of consciousness, emotions, and mental activities, while *Dasha Dhamani* help in the transportation of mental impulses and communication. Modern scholars correlate these concepts with the brain, nervous system, and neuroendocrine pathways involved in emotional and cognitive regulation.

Manovah Srotas are responsible for maintaining memory, concentration, emotional balance, cognition, and psychological wellbeing. Proper functioning of these channels helps maintain *Satva Bala* and mental stability. Disturbance of *Manovah Srotas* can lead to impaired memory, emotional imbalance, poor

concentration, disturbed sleep, anxiety, and other psychological problems.[6] *Ayurveda* explains that *Manovaha Srotodusthi* occurs due to factors such as *Pranjnaparadha, Ratrijagarana*, emotional stress, fear, anger, grief, unhealthy lifestyle practices, and excessive stimulation of the senses.[5,6]

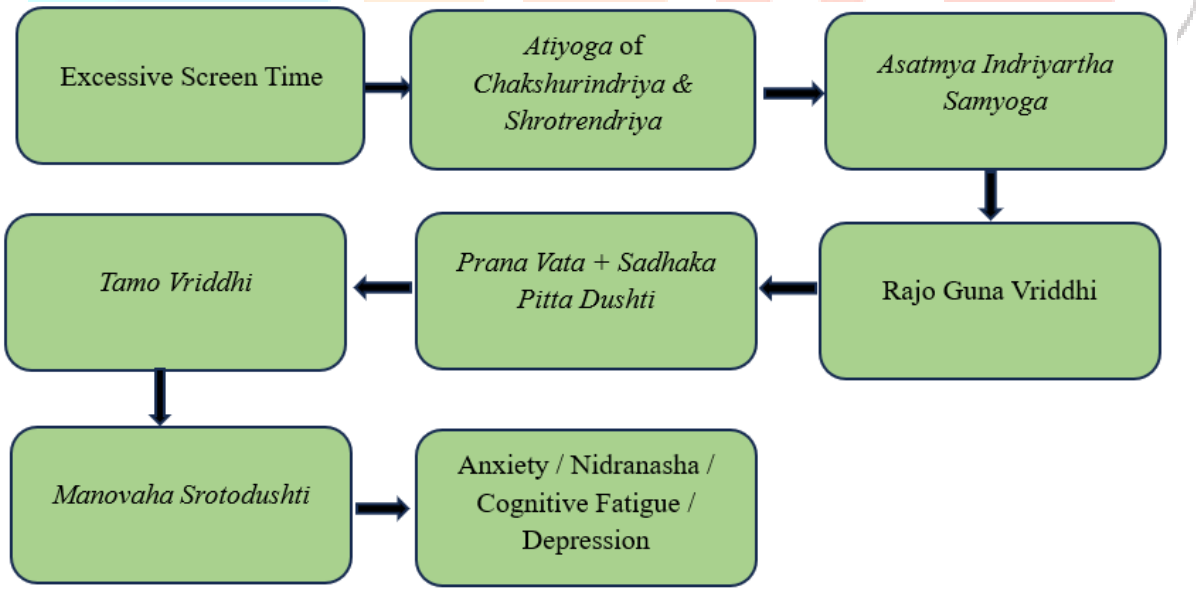
EXCESSIVE SCREEN TIME AND AYURVEDIC PERSPECTIVE:

In the present digital era, excessive screen exposure continuously stimulates *Chakshurindriya, Shrotrendriya,* and *Manas* through visual and auditory input. Continuous scrolling, gaming, binge watching, social media use, and information overload produce excessive sensory stimulation and mental strain.[14]

From an *Ayurvedic* point of view, this can be understood as *Atiyoga* of *Indriyas* and *Asatmya Indriyartha Samyoga*. Repeated excessive use despite knowing its harmful effects can also be considered a form of *Prajnaparadha.*[15]

Initially, excessive screen exposure increases *Rajas*, causing restlessness, anxiety, irritability, impulsive behaviour, emotional instability, and hyperactivity.[5,14] Long-term exposure gradually increases *Tamas*, leading to mental tiredness, dullness, lack of concentration, disturbed sleep, lack of motivation, and depressive symptoms.[14]

Excessive digital stimulation also aggravates *Prana Vata* and *Sadhaka Pitta*, which affects higher mental and emotional functions. Continuous disturbance of *Raja* and *Tama* finally affects *Manovaha Srotas* and produces *Manovaha Srotodusthti*, which may manifest as anxiety, behavioural addiction, emotional imbalance, sleep disturbances, cognitive fatigue, and psychosomatic complaints.[14] Therefore, excessive screen time can be considered an important modern cause for the vitiation of *Manovaha Srotas* and related psychological disorders.



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CONCEPT OF SCREEN TIME:

Screen time refers to the amount of time spent using electronic devices such as smartphones, televisions, computers, tablets, laptops, and gaming consoles. In today's digital era, the use of these devices has become a part of everyday life for education, work, communication, entertainment, and social interaction. Due to rapid technological advancement and increased internet accessibility, the duration of daily screen exposure has increased significantly in all age groups.[16]

According to the world health organization (WHO), screen time is defined as, "Time spent passively watching screen-based entertainment such as television, computers, and mobile devices.[16] WHO

guidelines also recommend the children below 24 months of age should not be exposed to screens, while children below 5years should be limited to less than one hour of screen time per day.[16]

The Harvard Medical School Center on Media and Child Health recommends maintaining screen-free family meals and refraining from using digital devices for at least one hour before sleep in order to preserve healthy sleep quality. Furthermore, working adults are advised to practice the 20-20-20 rule, which involves looking at an object approximately 20 feet away for 20 seconds after every 20 minutes of screen exposure, thereby helping to reduce digital eye strain effectively.[18]

Age wise Recommended Daily screen Limit [19]

Age Group	Recommended Daily Limit	Primary Risk Area
Under 2 years	Zero screen time (except video calls)	Language acquisition and speech delays
2 to 5 years	Maximum 1 hours (high-quality content)	Fine and gross motor skills development
6 to 17 years	Maximum 2 hours of entertainment	Sleep deprivation and mood Disorders
Adults	Limit non-work use; take frequent breaks	Cognitive decline and metabolic risks

In recent years, excessive screen exposure has become very common because of online education, work-from-home culture, social media platforms, online gaming, and digital entertainment. Smartphones and social media applications encourage continuous engagement by providing constant notifications and unlimited digital content.

Modern research has shown that prolonged screen exposure affects mental and neurological health. Excessive screen time is associated with anxiety, depression, irritability, emotional instability, reduced concentration, impaired memory, disturbed sleep, behavioural addiction, and cognitive fatigue.[14] Night-time screen exposure especially affects melatonin secretion and disturbs circadian rhythm, leading to poor sleep quality and mental exhaustion.[6]

From an *Ayurvedic* perspective, excessive screen exposure can be understood under *Asatmya Indriyartha Samyoga*, which means improper contact between sense organs and their objects. Continuous stimulation of *Chakshurindriya* and *Shrotrendriya* through digital devices causes overuse of the senses and disturbs *Manas* and psychological functioning.

Continuous digital stimulation aggravates *Rajas* and *Tamas*. Initially, excessive screen use causes *Raja*-Dominant symptoms such as hyperactivity, restlessness, anxiety, irritability, and emotional excitement.[14] Later, prolonged exposure leads to *Tama*-dominant symptoms such as mental dullness, fatigue, poor concentration, lack of motivation, and depressive features.[18] At the same time, *Satva Guna*, gradually decreases.

The combined effect of sensory overload, emotional stress, disturbed sleep, and *Raja-Tama* aggravation ultimately affects the normal functioning of *Manovaha Srotas*. Thus, excessive screen time can be considered an important modern causative factor for *Manovaha Srotodushti* and related psychosomatic disorders.

NEUROPSYCHOLOGICAL EFFECT:

Several studies have reported that excessive internet use and screen-related addictive behaviours may produce structural alterations in the brain, particularly within the frontal lobe. These changes are associated with diminished ability to filter irrelevant information and reduced capacity to manage complex and demanding tasks effectively. The frontal lobe plays a crucial role in regulating inappropriate or impulsive behaviours and in adapting to environmental changes.[20]

Research has also indicated that impairment of white matter may be associated with poor emotional regulation, difficulties in decision-making, and compulsive repetitive behaviors. Furthermore, studies examining screen multitasking suggest that continuous shifting of attention across multiple digital media platforms may gradually replace real-word behavioral engagement.[21]

Another study on the same group found links between less grey matter and poorer conflict detection of conflict, increased neuroticism and impulsivity, poorer control over behavior that are goal-oriented, and increased conduct motivated by sensations.[20]

DISCUSSION:

The present review highlights that excessive screen time has emerged as an important lifestyle-related health concern affecting both physical and psychological wellbeing. Rapid digitalization, increased dependance on smartphones, online education, social media engagement, gaming, and occupational screen exposure have drastically increased daily screen time across all age group. Although technological advancement has improved communication and accessibility of information, uncontrolled and prolonged exposure to digital devices has resulted in significant psychological, behavioural, cognitive, and sleep-related disturbances.

Modern studies have demonstrated a strong association between excessive screen exposure and anxiety, depression, irritability, cognitive fatigue, emotional instability, impaired concentration, sleep disturbances, and behavioural addiction.

From an *Ayurvedic* perspective, these manifestations can be better understood through the concepts of *Manas, Triguna,* and *Manovaha Srotas*. *Ayurveda* considers *Manas* as the governing factor for cognition, perception, emotional regulation, memory, and behavioural responses. Proper functioning of *Manas* depends upon the equilibrium of *satva, Rajas*, and *Tamas*. Among these, *Satva* maintains clarity, emotional stability, and intellectual balance, whereas aggravated *Rajas* and *Tamas* produce psychological disturbances.

Excessive screen exposure continuously stimulates sensory organs, particularly *Chakshurindriya* and *Shrotrendriya*, causing persistent sensory excitation and mental overload. This condition closely resembles *Atiyoga* of *Indriyas* and *Asatmya Indriyartha Samyoga* described in *Ayurveda.*

Continuous exposure to fast-moving digital content, social media notifications, gaming stimulation, and information overload aggravates *Rajas*, resulting in hyperactivity, restlessness, anxiety, irritability, impulsiveness, and emotional excitability. Prolonged digital overstimulation eventually leads to *Tama* predominance manifested as mental fatigue, dullness, poor concentration, lack of motivation, disturbed sleep, and depressive features. Therefore, excessive screen exposure produces progressive deterioration of *Satva* and contributes to *Manasika Dosha Dushti.*

The concept of *Prajnaparadha* also plays a crucial role in understanding screen-related behavioural addiction. Despite awareness regarding the harmful effects of prolonged screen usage, individuals continue compulsive scrolling, binge watching, gaming, and night-time device usage due to impaired *Dhi, Dhriti,* and *Smriti*. Such repeated unhealthy behavioural patterns disturb psychological equilibrium and contribute to the vitiation of *Manovaha Srotas. Ratrijagarana* caused by late-night screen exposure further aggravates *Prana Vata* disrupts *Nidra*, resulting in impaired cognitive restoration and emotional

instability. Modern research supporting circadian rhythm disturbance, melatonin suppression, and neuroendocrine dysregulation due to blue light exposure correlates with the *Ayurvedic* understanding of *Nidranasha* and *Manovaha Srotodushti.*

Ayurvedic literature describes *Hridaya* and *Dasha Dhamani* as the *Mulasthana* of *Manovaha Srotas*. Contemporary interpretations correlate these structures with higher neurological and neuroendocrine pathways involved in cognition, emotional processing, autonomic regulation, and behavioural adaptation. Excessive digital stimulation may disturb these functional pathways, leading to cognitive exhaustion and psychosomatic manifestations.

The psychological symptoms associated with excessive screen time such as anxiety, *Vishada, Chinta*, irritability, emotional instability, sleep disturbance, and behavioural dependency can be considered clinical expressions of *Manovaha Srotodushti.*

The review also emphasizes that *Ayurveda* offers a holistic approach for the prevention and management of digital-era psychological disorders. Principles such as *Nidana Parivarjana*, *Dinacharya,* proper sleep hygiene, *Satvavajaya Chikitsa, Yoga, Pranayama, Dhana,* and *Medhya Rasayana* may help restore psychological balance and improve mental resilience. Regulation of sensory exposure and maintenance of healthy behavioural discipline are particularly important in preserving *Satva* and preventing further vitiation of *Manovaha Srotas.*

CONCLUSION:

The present study highlights the relevance of *Ayurvedic* concepts in understanding the psychosomatic effects of prolonged screen exposure in the modern era. Adoption of preventive and promotive measures such as regulated digital usage, *Dinacharya, yoga,* meditation, adequate rest, and mindful sensory control can help maintain the equilibrium of *Manovaha Srotas* and support overall mental well-being. Therefore, integrating *Ayurvedic* principles with modern digital hygiene practices may provide an effective holistic approach to minimizing the adverse effects of excessive digital screening and promoting a healthier lifestyle.

In addition, emphasis should be given to the role of *Sadvritta* (ethical and disciplined lifestyle) and proper *Aahara-Vihara* in preserving mental clarity and emotional stability in the digital age. Regular practice of eye care measures such as *Netra Tarpana*, blinking exercises, and periodic breaks during screen use may further help in reducing visual fatigue and stress-related symptoms. *Ayurvedic* approaches also encourage enhancement of *Satva Bala* (mental strength), which can improve adaptability, concentration, and resilience against digital overstimulation.

Furthermore, public awareness regarding the harmful consequences of excessive screen dependency should be promoted through educational and community-based initiatives. Incorporation of *Ayurvedic* lifestyle interventions in schools, workplaces, and daily routines may contribute significantly to the prevention of digital stress disorders and improvement of quality of life. Future interdisciplinary research integrating *Ayurveda* with contemporary neuroscientific and psychological perspectives is recommended to establish evidence-based strategies for digital wellness and holistic health promotion.

REFERANCES:

1. Santos RMS, Mendes CG, Bressani GYS, Ventura SA, Nogueira YJA, Romano-Silva MA. The associations between screen time and mental health in adolescents: a systematic review. *BMC Psychol*. 2023;11:127. doi:10.1186/s40359-023-01166-7.

2. Nakshine VS, Thute P, Khatib MN, Sarkar B. Increased screen time as a cause of declining physical, psychological health, and sleep patterns: a literary review. *Cureus*. 2022;14(10):e30051. doi:10.7759/cureus.30051.

3. Patil SS, et al. A review study on the concept of Manovaha Srotas in Ayurveda and its clinical importance. *Int J Res Ayurveda Pharm*. 2023.

4. Chang AM, Aeschbach D, Duffy JF, Czeisler CA. Evening use of light-emitting eReaders negatively affects sleep, circadian timing, and next-morning alertness. *Proc Natl Acad Sci U S A*. 2015;112(4):1232-1237. doi:10.1073/pnas.1418490112.

5. Dange M, et al. Digital era disorders: an Ayurvedic perspective on pathogenesis, prevention and management. *J Ayurveda Integr Med Sci*. 2024;9(4):112-118.

6. Rathi R, et al. A critical review study on the concept of Manas in Ayurveda and its consequence in present epoch. *Int J Res Ayurveda Pharm*. 2023;14(4):1-5. Available from: ResearchGate

7. Sahu H, Bhardwaj V, Ghatge CA. Ayurvedic concept of Manas (mind) in perception of knowledge. *J Ayurveda Integr Med Sci*. 2023;8(11):93-96. doi:10.21760/jaims.8.11.13.
8. Sreekumar T. *Kriya Sharira*. 2nd ed. Kannur: Harishree Ayurbhavan; 2023. Chapter 14, Manas; p. 303.

9. Agnivesha. Charaka Samhita with Ayurveda Dipika commentary of Chakrapanidatta. Sutrasthana, Indriyopakramaniya Adhyaya. Reprint ed. Varanasi: Chaukhambha Orientalia; 2020.

10. Lahange SM, Bhangare AN, Bhatnagar V, Bhatnagar S. A critical review study on the concept of Manas in Ayurveda and its consequence in present epoch. *European Journal of Pharmaceutical and Medical Research*. 2017;4(7):288-294.
11. Acharya JT. Charaka Samhita with Ayurveda Dipika Commentary of Chakrapani Datta. Reprint ed. Varanasi (India): Chaukambha Orientalia; 2007. Sharirasthana 1/20, p. 288.
12. Acharya JT. Charaka Samhita with Ayurveda Dipika Commentary of Chakrapani Datta. Reprint ed. Varanasi (India): Chaukambha Orientalia; 2007. Sharirasthana 1/21, p. 288.

13. Tripathi Brahmananda, Editor Ashtanga Hridaya of Vaghbhatta, Sutra Sthan, Ch.1 Ver. 21, Delhi, Chaukhmbha Sanskrit Pratisthan, Edition Reprint 2003, pg. 17.
14. Khan A, et al. Relationship of screen time with anxiety, depression and sleep quality among adolescents. Middle East Current Psychiatry. 2023;30(45):1-9.
15. *Dr. Sonutai Madhavrao Shinde, Dr. Anil Chandrakant Deshpande. Concept of Asatmendriyartha Samyoga W.S.R. Excessive Screen Time. IJRPAS, Sept – Oct 2024; 3(5): 01-05*
16. World Health Organization. Guidelines on Physical Activity, Sedentary Behaviour and Sleep for Children under 5 Years of Age. Geneva: World Health Organization:2019.
17. Screen Time Effects on Brain:Are we Overstimulated? SHRH Health Blog. 2023.
18. Harvard Medical School. *Blue light has a dark side*. Harvard Health Publishing; 2020.

19. All About Vision. Screen time by age: Effects, recommendations, and tips [Internet]. San Clemente (CA): All About Vision; 2024 [cited 2026 May 21]. Available from: All About Vision – Screen Time by Age
20. Adverse physiological and psychological effects of screen time on children and adolescents: Literature review and case study. Lissak G. Environ Res. 2018;164:149–157. doi: 10.1016/j.envres.2018.01.015. [DOI] [PubMed] [Google Scholar]
21. Television exposure, sleep time, and neuropsychological function among preschoolers: Media psychology. [Aug; 2022];Nathanson AI, Fries PT. https://www.tandfonline.com/doi/abs/10.1080/15213269.2014.915197