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DIGITAL ERA DISORDERS: AN AYURVEDIC PERSPECTIVE ON PATHOGENESIS, PREVENTION, AND MANAGEMENT

***[1]Dr. Soumyadip Saha, [2]Dr. Sukalyan Ray, [3]Dr. Joydip Tripathi**

[1]Junior Resident, Dept. of Swasthavritta & Yoga, Faculty of Ayurveda, IMS, Banaras Hindu University, Varanasi, Uttar Pradesh.
[2]Professor, & H.O.D, Dept. of Roga Nidan avum Vikriti Vigyan, Naiminath Ayurvedic Medical college, Hospital & Research Centre, Agra, Uttar Pradesh.
[3]Assistant Professor, Dept. of Swasthavritta & Yoga, J.B. ROY State Ayurvedic Medical College & Hospital, Kolkata, West Bengal.

Corresponding Author: Dr. Soumyadip Saha

Junior Resident, Dept. of Swasthavritta & Yoga, Faculty of Ayurveda, IMS, Banaras Hindu University, Varanasi, Uttar Pradesh.

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ABSTRACT

The rapid expansion of digital technology has reshaped human behaviour and lifestyle, leading to the emergence of several modern lifestyle disorders collectively termed Digital Era Diseases. Among these, techno-stress, screen addiction, and sleep disturbances have become increasingly prevalent across all age groups. Excessive screen exposure, information overload, and dependence on digital devices contribute to neurocognitive strain, behavioural dysregulation, and circadian rhythm disturbances. Current biomedical studies associate these conditions with dopamine reward-cycle imbalance, mental fatigue, blue-light-induced melatonin suppression, and chronic sympathetic activation. Ayurveda offers a comprehensive approach for understanding these disorders through classical concepts such as *Prajnaparadha*, *Atiyoga of Indriyas*, *Vata-Pitta prakopa*, *Manovaha Srotodushti*, and *Nidranasha*. Techno-stress corresponds to mental strain resulting from the excessive utilisation of *Manas* and cognitive faculties; screen addiction aligns with *Asatmya Indriyartha samyoga* and *Tamasika Vrittis*; and sleep disorders reflect aggravated *Vata* and *Pitta* impairing natural sleep mechanisms. Ayurvedic management emphasises *Nidana Parivarjan*, incorporating digital fasting, reduction of screen time, and behavioural regulation. Therapeutic interventions include *Vata-Pitta shamaka Ahara*, *Medhya* herbs such as *Brahmi*, *Ashwagandha*, *Sankhapushpi*, etc., along with *Rasayana* formulations for cognitive stability. Lifestyle measures, including *Dinacharya*, evening relaxation practices, and screen-free routines, support circadian balance. *Yoga*, *Pranayama* (particularly *Bhramari* and *Chandra-bhedana*), mindfulness, and *Yoga Nidra* have been shown to reduce stress and improve sleep quality. *Panchakarma* therapies like *Abhyanga*, *Shirodhara*, *Nasya*, and *Netra tarpana* further help restore mental equilibrium and relieve screen-induced strain.

KEYWORDS: Techno-Stress, Screen Addiction, Sleep Disorders, *Prajnaparadha, Nidranasha, Manovaha Srotodushti,* Insomnia, *Ayurveda, Rasayana, Yoga Nidra, Panchakarma.*

INTRODUCTION

The twenty-first century has witnessed an extraordinary digital revolution that has transformed the way human beings work, communicate, learn, and entertain themselves. Smartphones, high-speed internet, social media platforms, artificial intelligence, and virtual workplaces have become integral to daily living. While these technological advancements have enhanced efficiency and connectivity, they have also reshaped behavioural patterns, occupational demands, and lifestyle practices. Continuous engagement with digital devices, multitasking between online platforms, and the constant influx of information have created a state of persistent sensory and cognitive stimulation, especially among urban and younger populations. Within this rapidly evolving environment, a new spectrum of lifestyle-

related health problems collectively termed "Digital Era Diseases" has emerged. These disorders arise primarily from excessive, unregulated, or maladaptive use of digital technologies. They include conditions such as techno-stress resulting from constant digital engagement, compulsive screen-use behaviours that resemble addiction patterns, and sleep disturbances linked to blue-light exposure and disrupted circadian rhythms. Although these conditions are not yet formally classified in many traditional disease taxonomies, they are increasingly acknowledged as significant contributors to physical, mental, and social health impairments. Among these disorders, techno-stress, screen addiction, and sleep disturbances have become major public-health concerns. Rising levels of anxiety, irritability, attention deficits, poor sleep quality, and reduced productivity are commonly reported among individuals with high screen-time exposure. Children and adolescents are particularly vulnerable due to increased dependence on digital education and entertainment. Public-health data from various countries indicate a steady increase in digital-dependence disorders, underscoring the need for timely preventive and therapeutic strategies. In this context, Ayurveda provides a valuable framework for understanding these emerging disorders through its emphasis on mind–body balance, appropriate sensory engagement, and lifestyle modification. Concepts such as *Prajnaparadha* (intellectual blasphemy), *Atiyoga of Indriyas* (excessive use of sense organs), Vata-Pitta imbalance, and disturbances in Manovaha Srotas closely align with the mechanisms underlying digital-era diseases. An integrative approach combining modern behavioural science with Ayurvedic principles may offer a more comprehensive, sustainable, and holistic approach to management.

This article aims to analyse the emergence of digital-era diseases from both contemporary and Ayurvedic perspectives, and to explore evidence-based Ayurvedic strategies for their prevention and management. By bridging traditional knowledge with modern scientific understanding, this work aims to promote a balanced, health-oriented approach to the use of digital technology in contemporary lifestyles.

MATERIALS AND METHODS

This study was conducted as a narrative and analytical review aimed at exploring the concept of digital-era diseases, specifically techno-stress, screen addiction, and sleep disturbances, from both modern and Ayurvedic perspectives, and to evaluate Ayurvedic management strategies for these conditions. Classical Ayurvedic literature, including Charaka Samhita, Sushruta Samhita, Ashtanga Hridaya, Ashtanga Sangraha, and various Nighantus, was reviewed to extract relevant theoretical concepts related to *Prajnaparadha, Atiyoga of Indriyas, Manovaha Srotas, Nidranasha,* and associated diagnostic and therapeutic principles. Modern sources were searched electronically using PubMed, Google Scholar, Scopus, ResearchGate, and official health reports, including WHO publications and NIMHANS data on digital behavioural disorders. The search strategy involved the use of combined keywords such as techno-stress, screen addiction, digital addiction, insomnia, *Ayurveda*, *Rasayana*, *Yoga Nidra*, *Panchakarma*, and digital lifestyle disorders. The literature published between 2000 and 2025 was primarily considered for inclusion. Relevant clinical studies, epidemiological findings, behavioural science papers, and experimental research documenting either the etiological mechanisms or management of digital-induced health alterations were included, while duplicate papers, non-scientific reports, and studies with insufficient methodological clarity were excluded.

After initial screening of titles and abstracts, full-text articles meeting the inclusion criteria were evaluated in depth. The information was systematically extracted regarding the pathophysiology of digital-era disorders, neurocognitive mechanisms of stress and addiction, and the impact of circadian disruption on sleep health. These contemporary findings were correlated with Ayurvedic principles of disease causation and dosha imbalance to establish a conceptual mapping. Further analysis was conducted to identify evidence-based Ayurvedic interventions, including *Medhya Rasayana, Dinacharya, Yogic* practices, and *Panchakarma* procedures relevant to digital-age health problems. As this is a review study utilising previously published literature, no ethical approval was required.

RESULTS AND DISCUSSIONS

Digital Era Diseases

Techno-stress: It is commonly defined as the psychological strain and discomfort that arise when an individual is unable to cope adequately with technology-related demands and rapid digital change.[1] It is particularly observed in environments where constant connectivity, multitasking on digital platforms, and frequent software or device updates are expected. Individuals report symptoms such as mental fatigue, irritability, reduced concentration, sleep problems, and a sense of being overwhelmed by emails, messages, and notifications.[2] There are several specific 'techno-stressors'. Techno-overload occurs when technology forces people to work faster, process more information, and remain available for longer hours. Techno-invasion reflects the blurring of boundaries between work and personal life, as digital devices allow people to be contacted anytime and anywhere. Techno-complexity refers to the feeling that systems are too complicated, requiring continuous learning and adaptation. Techno-insecurity is the fear of being replaced or judged negatively because of inadequate technological skills.[3] Together, these techno-stressors contribute to chronic stress responses, disturbed work–life balance, and a higher risk of anxiety and burnout.

Screen addiction: It is often discussed under terms such as smartphone addiction, internet addiction, or

problematic digital use, which denotes a pattern of excessive and poorly controlled use of digital devices leading to functional impairment in academic, professional, social, or family domains.[4] It most commonly involves smartphones, social media platforms, online gaming, and streaming applications. From a neurobiological point of view, repeated engagement with highly stimulating digital content activates the brain's reward circuitry, particularly dopaminergic pathways, like other behavioural addictions.[5] Mechanisms sustaining screen addiction include intermittent rewards (likes, messages, game rewards), personalised content feeds, and constant novelty, all of which encourage prolonged use and compulsive checking. "Fear of missing out" (FOMO) and social comparison further drive users to remain online to avoid feeling excluded from peer interactions or trending information.[6] Over time, individuals may experience craving, loss of control, withdrawal-like symptoms (irritability, restlessness when unable to access devices), and neglect of offline responsibilities. Excessive screen use is consistently associated with anxiety, depressive symptoms, reduced academic performance, and disruption of daily routines, especially among adolescents and young adults.[7]

Sleep disorders: Sleep disturbances are a major manifestation of digital-era morbidity. Prolonged evening and nighttime exposure to light-emitting screens (smartphones, tablets, laptops, LED monitors) exposes the eyes to blue-wavelength light, which suppresses melatonin secretion and alters the normal circadian rhythm.[8-9] Melatonin is a key hormone regulating the sleep–wake cycle; its suppression delays sleep onset and reduces overall sleep depth. Multiple observational and interventional studies show that increased screen time, especially in the hours close to bedtime, is associated with shorter sleep duration, delayed bedtimes, and poorer subjective sleep quality among children, adolescents, and adults.[10-11] Typical clinical presentations include difficulty falling asleep (Insomnia), frequent night-time awakenings, non-restorative sleep, and delayed sleep–wake phase, often described as 'social jet lag.' These sleep problems are compounded by late-night gaming, binge-watching, or social media use in bed, leading to chronic sleep deprivation, daytime fatigue, reduced attention, and a higher risk of mood and cardiometabolic disorders.[12]

Epidemiology

Digital-era diseases are now recognised as a growing global public-health issue. A large meta-analysis involving over 2.1 million individuals from 64 countries estimated that approximately 27% of the general population meets criteria for smartphone addiction, 17% for social media addiction, and about 14% for internet addiction.[13] Other umbrella reviews and meta-analyses report similar ranges, indicating that digital addictions affect between 6% and 27% of people, depending on the type of digital behaviour and population studied.[14] In India, several recent surveys highlight the rising burden among children, adolescents, and young adults. A cluster-based survey among school-going adolescents reported notable levels of technology addiction involving internet, gaming, smartphone, and television use.[15] A systematic review on mental-health issues among Indian school children and adolescents in 2024 estimated the prevalence of technology addiction to be nearly 10.7%, with mobile phone addiction being the most common subtype.[16] Hospital-based reports also reflect this trend: a new "Behavioural Addiction and Digital Well-Being" clinic in Mysuru noted that various Indian studies show that roughly 13.5–22% of children, adolescents, and college students exhibit high-risk digital behaviours.[17] A recent study among Indian undergraduate medical students found that around 40% met criteria for smartphone addiction, with a strong association between excessive use and anxiety, irritability, and sleep problems.[18] NIMHANS, through its National Mental Health Survey, has documented a substantial burden of common mental disorders among adolescents and adults in India, and its specialised 'Service for Healthy Use of Technology' (SHUT) clinic reports increasing numbers of young people presenting with digital dependency, anxiety, and sleep complaints.[19] These observations suggest that digital overuse has become an important contributor to the overall mental-health load in the country. Sleep problems related to screen exposure are also widely prevalent. Systematic reviews show that increased screen time is adversely associated with sleep outcomes in about 90% of studies on school-aged children and adolescents, mainly through reduced sleep duration and delayed timing.[20] More screen use in bed, particularly interactive activities such as gaming and multitasking, is associated with shorter sleep duration and poorer sleep quality in early adolescents. Public health surveys across countries indicate that 30–50% of school-age children report some form of sleep problem, with late-night screen use identified as a major modifiable factor.[21] The World Health Organization has responded to these trends by issuing guidelines on physical activity and sedentary behaviour, advising minimal sedentary screen time for young children and emphasising that high screen exposure, especially when combined with insufficient sleep and low physical activity, increases the risk of obesity, poor cardiometabolic health, and developmental problems.[22]

Etiopathogenesis – An Ayurveda Perspective

According to Charaka Samhita, Sushruta Samhita and other classical Ayurvedic compendia, health is maintained when there is equilibrium among the three fundamental bodily humours (*Vata, Pitta, Kapha*), the mind (*Manas*) and the sense-organs (*indriyas*), and when the channels (*Srotas*) are functioning harmoniously. Mental health depends not only on physiologic *dosha* balance but also on harmony among the mental qualities (*Sattva, Rajas, Tamas*) and appropriate sensory engagement. When modern digital behaviours such as prolonged screen use, constant connectivity and sensory

overload become habitual, Ayurvedic theory would interpret these as etiological factors belonging to *Atiyoga* (overuse/excess) of *indriyas* (sense organs), improper sensory engagement, and *Prajnaparadha* (intellectual error/misuse of cognitive faculties). *Prajnaparadha* is composed of two words: *Pragya* and *Aparadh*. *Pragya* = *Buddhi* + *Dhruti* + *Smruti*, and *Aparadh* means misdemeanour. Derangement of the intellect (*Buddhi*), restraint (*Dhriti*) and memory (*Smriti*) leads to improper actions. Improper actions vitiate all *doshas*.[23] These are classical *Nidana* categories known to disturb mental equilibrium and lead to *manas vikruti* (mind disturbances) or disease. Chronic information overload, frequent multitasking, incessant notifications, and compulsive device use would qualify as *atiyoga of Indriyartha samyoga* (unwholesome or excessive sensory object association), which in turn overloads the cognitive–psychological apparatus (*manas* + *indriyas* + sense-objects). This may provoke deterioration in the mental 'humoral' balance, especially aggravation of *Vata* and *Pitta*. As the doshas deviate from their natural positions & proportions, the balance among the doshas and Srotas is lost, leading to symptoms of mental stress, irritability, restlessness, anxiety, and cognitive fatigue, which are the classical signs of *manovikara* (psychic/mental disorder) in *Ayurveda*.

Digital Era Disorders	***Nidana* (Causative factor)**	***Dosha* imbalance**	***Samprapti* Ghataks**	***Lakshana***	**Possible long-term complications**
Techno Stress	*Atiyoga* of *Indriyas* (Excess screen exposure, Digital multitasking, Constant notifications, Information overload, doom scrolling, etc.)	*Vata* ↑ (Prana, Udana, Vyana) → restlessness, cognitive overload. Pitta ↑ → irritability, anger. Rajas ↑ → hyperactivity.	Prana Vaha & Manovaha Srotas dushti.	Anxiety, irritability, Poor concentration, brain fatigue, Emotional instability and Nervousness.	Chronic stress & burnout, Anxiety spectrum disorders,
Screen Addiction	Improper sensory engagement *(Asatmya Indriyartha samyoga)* Excessive social media/gaming Reward-seeking behaviour Compulsive checking.	*Vata* ↑ (Chala, Laghutva) → compulsivity. *Pitta* ↑ → impulsivity, aggression. *Tamas* ↑ → craving, dullness.	*Manovaha Srotas dushti.*	Craving for screens, Loss of control, Irritation when restricted, social withdrawal and low productivity.	Behavioural addiction disorders, Metabolic disorders.
Sleep Disorders	Night-time screen exposure Circadian disruption Overthinking Melatonin disruption.	*Vata* ↑ (Prana, Udana) → difficulty falling asleep, *Pitta* ↑ → late-night arousal, early awakening. *Kapha* ↓ → Reduced sleep depth	*Pranavaha* & *Manovaha Srotas dushti. Kapha Kshaya*	Delayed sleep onset, Fragmented sleep, Daytime fatigue, etc. Mood & cognitive repair.	Chronic insomnia, Cardiometabolic risk, Anxiety-depression.

Prevention & Management

Ayurveda recommends a holistic approach that comprises: *Nidana Parivarjan* (the removal of causative factors), the restoration of *Dosha* balance, and the promotion of mental well-being. Management of these diseases focuses on mind-body balance through *Vihara* (lifestyle), *Yoga*, *Rasayana* therapy and *Panchakarma.*

1. **Nidana Parivarjan (Digital Detoxification & Sensory Regulation):** Eliminating or reducing causal factors is the first line of treatment in *Ayurveda*.[24] In digital-era disorders, this includes.

- ✓ Restricting screen time (especially before bedtime)
- ✓ Taking periodic breaks during digital work
- ✓ Avoiding the use of phones during meals and social interaction
- ✓ Maintaining healthy work-life boundaries.

Reducing screen time or device exposure decreases continuous sensory over-stimulation (visual, auditory) and information overload, thereby lowering cognitive load. This helps prevent chronic activation of the stress response (sympathetic nervous system, HPA axis).[25] In Ayurvedic terms, avoiding *Atiyoga of Indriyas* and *Asatmya-Indriyartha-samyoga* prevents aggravation of *Vata/Pitta* and protects the *Manovaha Srotas*.[26]

2. **Vihara (Lifestyle interventions):** Healthy lifestyle practices such as - Regular sleep schedule aligned with *Dincharya* principles, Morning sunlight exposure, Gentle daily exercise and outdoor activities, *Netra-Paricharya* (eye care) such as - *Netra dhavana* by *Triphala along with Madhu Ghrita*, Palming, blinking exercises, etc., help to reduce technostress-induced fatigue & protect mental faculties, and restore natural circadian rhythm.[27][28]

3. **Yoga:** *Yoga* plays a crucial role in stabilizing mental functions and reducing stress. The following practices can be useful.
- ✓ *Asanas: Tadasana, Trikonasana, Balasana, Marjariasana, Vajrasana, Shavasana*
- ✓ *Pranayama: Anulom-Viloma, Bhramari, Chandra-Bhedana*
- ✓ Meditation & Mindfulness.
- ✓ *Yoga Nidra* for sleep restoration, etc.

Because

A. ANS Balance: Regular *Yoga* and *pranayama* practices have been shown to shift the autonomic balance from sympathetic (stress, fight or flight) dominance to parasympathetic (rest, digest, repair) dominance.[29]

B. Reduction of stress, anxiety, improved emotional regulation: Practices such as *pranayama* (breath control), *Dhyana* (meditation), and *Yoga Nidra* suppress excessive arousal, reduce anxiety, and improve mood. Controlled breathing modulates cardiovascular parameters (heart rate, blood pressure), reduces cortisol and stress hormones, and enhances vagal tone - all contributing to relaxation and improved resilience.[30]

C. Neurotransmitter and neuroplasticity effects: *Yoga* and meditation influence brain function - increasing GABAergic activity, improving inhibitory control, reducing overactivity in stress-related neural circuits (e.g., amygdala), enhancing connectivity and structural changes (in cortical & subcortical regions) over long-term practice.[31] This can improve patterns of compulsive behaviour (screen addiction), improve attention regulation, emotional stability, and mental clarity.

D. Sleep restoration and regulation of circadian rhythm: By calming the nervous system, reducing sympathetic arousal, and promoting parasympathetic dominance, *Yoga Nidra* and relaxation practices support natural sleep onset, improved sleep depth, and recovery.[32]

4. **Medhya Rasayana and Shamana Oushadhi:** Herbs like *Brahmi* (*Bacopa monnieri*) have been shown to support neuronal health, enhance memory, attention, and cognitive performance, and reduce oxidative stress and neuroinflammation.[33] *Ashwagandha* (*Withania somnifera*), another classical *Rasayana* herb, has adaptogenic properties - it appears to modulate the stress response (HPA axis), lower cortisol levels, improve mood, and enhance sleep quality.[34] These herbs act as neuro-Phyto modulators, interacting with neurotransmitter systems (e.g. cholinergic, GABAergic), reducing oxidative and inflammatory stress in the brain, improving neuroplasticity, enhancing resilience to repeated sensory/mental stress, and promoting restful sleep. This counters the neurocognitive and physiological harm inflicted by prolonged digital exposure, poor sleep habits, and chronic stress.

5. **Panchakarma Therapies**: Restorative therapies that help to pacify *Vata-Pitta* and cleanse disturbed *Srotas* are beneficial, e.g.

Abhyanga helps calm *Vata*, improves circulation, nourishes the body tissues, reduces neuromuscular tension, and promotes parasympathetic dominance, thereby reducing stress and promoting relaxation.[35]

Shirodhara: Known to soothe the nervous system, calm the mind, and improve sleep. The gentle rhythmic stimulation has a calming effect on the central nervous system, reduces sympathetic overdrive, and helps to reset maladaptive stress responses, especially useful in sleep disturbances and chronic stress.[36]

Nashya helps clear and rejuvenate sensory channels (especially the nose and head region), reducing mental fog, improving clarity, and reducing stress and anxiety. This can be particularly beneficial in cases of screen-induced eye strain, mental fatigue, and sensory overload.

Netra Tarpana: Regular eye care helps relieve ocular strain from prolonged screen exposure, preventing eye fatigue, dryness, headaches, and associated stress.[37]

By cleansing and rejuvenating body tissues and sensory channels, improving circulation, nervous system tone, and reducing accumulated stress toxins (Ama), Panchakarma therapies help restore physiological and psychological homeostasis disrupted by digital overload.

6. **Satvavajaya** (Behavioural & Psychological modifications): Promotion of *Sattva guna* (clarity, calmness, balance) and reduction of *rajas/tamas* (over-activity/ inertia) through disciplined daily routine, mindfulness, regulated sense-object interactions, proper sleep–wake cycle. This psychosocial regulation helps in reducing compulsive digital use, impulsivity, anxiety and ensures mental stability.[38][39][40]

CONCLUSIONS

The digital revolution has brought remarkable convenience and connectivity, but it has also introduced a new spectrum of lifestyle-related health challenges that were largely absent in earlier generations. Techno-stress, screen addiction, and sleep disturbances have emerged as interrelated digital era disorders that significantly affect mental health, cognitive performance, emotional stability, and overall quality of life. From a modern biomedical perspective, these conditions are associated with chronic sensory overstimulation, dysregulation of the stress response, alteration of reward pathways, and disruption of circadian rhythms. Their rising prevalence among children, adolescents, and working professionals highlights the urgent need for preventive and therapeutic strategies that go beyond symptomatic management. *Ayurveda* offers a comprehensive framework to understand these emerging disorders, even though they

are not described explicitly in classical texts. Concepts such as *Atiyoga of Indriyas*, *Prajnaparadha*, *Asatmya-Indriyartha-samyoga*, *Vata Pitta prakopa*, and *Manovaha Srotas dushti* closely parallel the mechanisms underlying digital-era diseases. The Ayurvedic perspective emphasises that excessive and improper engagement of the senses and mind leads to progressive imbalance, manifesting initially as mental strain and behavioural dysregulation, and eventually as sleep disturbances and psychosomatic illness. The strength of Ayurvedic management lies in its holistic and root-oriented approach. By prioritising *Nidana Parivarjan*, regulating diet and lifestyle, incorporating *Yoga* and *Pranayama*, utilising *Medhya Rasayana*, and applying appropriate Panchakarma therapies, Ayurveda addresses both the physiological and psychological dimensions of digital overuse. These interventions not only alleviate symptoms such as stress, compulsive screen behaviour, and insomnia but also enhance resilience, mental clarity, and adaptive capacity. From a modern scientific standpoint, many of these practices are supported by evidence demonstrating their role in autonomic regulation, stress reduction, neuroprotection, and sleep restoration. An integrative approach that combines responsible technology use with Ayurvedic principles of balanced living, sensory discipline, and mental hygiene offers a safe, sustainable, and culturally relevant solution. Ayurveda, when aligned with contemporary scientific understanding, has the potential to play a pivotal role in preventing and managing techno-stress, screen addiction, and sleep disorders, thereby promoting healthier engagement with digital technology in the modern world.

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REFERENCES

1. Murray SA, Shuler HD, Davis JS, Spencer EC, Hinton AO Jr. Managing technostress in the STEM world. Trends Biotechnol. 2022; 40(8): 903–906.
2. Kumar PS, et al. Technostress: a comprehensive literature review on psychological repercussions and organizational implications. Clin Epidemiol Glob Health. 2024
3. Tarafdar M, Tu Q, Ragu-Nathan BS, Ragu-Nathan TS. The impact of technostress on role stress and productivity. J Manag Inf Syst. 2007; 24(1): 301–328.
4. Panova T, Carbonell X. Is smartphone addiction really an addiction? J Behav Addict. 2018; 7(2): 252–259.
5. Al-Mamun F, et al. Prevalence and factors associated with digital addiction among university students: a cross-sectional study. BMC Psychiatry. 2024.
6. Shiferaw BD, et al. Impact of digital addiction on youth health: a narrative review. J Behav Addict. 2025; 14(3): 1129–1145.
7. Ramakrishna SK, et al. A retrospective study of life skills and healthy internet and smartphone use among adolescents. Indian J Psychol Med. 2023; 45(5): 399–407.
8. Chang AM, et al. Evening use of light-emitting e-readers negatively affects sleep, circadian timing, and next-morning alertness. Proc Natl Acad Sci U S A. 2015; 112(4): 1232–1237.
9. Silvani MI, et al. The influence of blue light on sleep, performance and wellbeing: a systematic review. Int J Environ Res Public Health. 2022; 19(15)
10. Hale L, Guan S. Screen time and sleep among school-aged children and adolescents: a systematic literature review. Sleep Med Rev. 2015; 21: 50–58.
11. Maurya C, et al. The association of smartphone screen time with sleep quality among adolescents: a cross-sectional study. BMC Public Health. 2022; 22
12. Brosnan B, et al. Screen use at bedtime and sleep duration and quality among youths. JAMA Pediatr. 2024; 178(11): 1147–1154.
13. Meng S-Q, et al. Global prevalence of digital addiction in general population: a systematic review and meta-analysis. Clin Psychol Rev. 2022; 92: 102128.
14. Han Y, et al. Factors associated with digital addiction: an umbrella review. JMIR Ment Health. 2025; 12: e66950.
15. Amudhan S, et al. Technology addiction among school-going adolescents in India: an epidemiological analysis from a district-wide cluster survey. Indian J Public Health. 2021; 65(Suppl 2): S112–S118.
16. Singh N, et al. Mental health issues among school children and adolescents in India: a systematic review. Cureus. 2024; 16(5).
17. JSS Medical College & Hospital. Special Clinic for Behavioural Addiction & Digital Well-Being launched in Mysuru. Times of India; 2025.
18. Chatterjee S, Kar SK. Smartphone addiction among medical students in India: a cross-sectional study. Glob Psychiatry Arch. 2025.
19. National Consultation on Adolescent Mental Health: SHUT clinic experiences on digital addiction. NIMHANS/UNICEFreport. [https: //timesofindia.indiatimes.com/city/bhopal/excessive-use-of-ai-may-blunt-creative-thinking-caution-experts/articleshow/123068270.cms?]
20. Drumheller K, et al. Sleep problems and screen use in children: a systematic review. Sleep Epidemiology. 2022.
21. Royal Children's Hospital National Child Health Poll. Screen time and sleep among Australian children. 2025.
22. World Health Organization. Guidelines on physical activity, sedentary behaviour and sleep for children under 5 years of age. Geneva: WHO; 2019.
23. The concept of Prajnaparadha (intellectual error) as a cause of disease. WJPMR. 2024

24. Baghel M.S., Mandal S.K.(2020). Vyadhita Rupiya Vimana Adhyaya. In: Khandel S.K., Bhagwat M., Deole Y.S., Basisht G., (Eds.), Charak Samhita New Edition (1st ed. pp.49).
25. Pandya A, Lodha P. Redefining psychopathology in the context of digital overload: emerging disorders in the age of information saturation. Cureus. 2024; 16(10): e71781. doi: 10.7759/cureus.71781.
26. Sharma RK, Dash B, translators. Charaka Samhita (Text with English Translation and Critical Notes based on Chakrapani Datta's Ayurveda Dipika). Vol. 1, Sutrasthana. 3rd ed. Varanasi: Chowkhamba Sanskrit Series Office; 2021. Chapter 11, Verse 43.
27. Sharma RK, Dash B, translators. Charaka Samhita. Vol. 1, Sutrasthana. Chapter 5. 3rd ed. Varanasi: Chaukhamba Sanskrit Series Office; 2021.
28. Gupta S, Goyal M, Sharma R. Clinical efficacy of Ayurvedic management in computer vision syndrome: a pilot study. AYU. 2011; 32(1): 50-55.
29. Maheswari M, Ann G T. Effect of Yoga on the Autonomic Nervous System: Clinical Implications in the Management of Atrial Fibrillation. J Yoga & Physio. 2017; 3(1): 555601. DOI: 10.19080/JYP.2017.03.555602
30. Novaes MM, Palhano-Fontes F, Onias H, Andrade KC, Lobão-Soares B, Arruda-Sanchez T, Kozasa EH, Santaella DF, de Araujo DB. Effects of yoga respiratory practice (Bhastrika pranayama) on anxiety, affect, and brain functional connectivity and activity: A randomized controlled trial. Frontiers in psychiatry. 2020 May 21; 11: 467.
31. Streeter CC, Gerbarg PL, Saper RB, Ciraulo DA, Brown RP. Effects of yoga on the autonomic nervous system, gamma-aminobutyric-acid, and allostasis in epilepsy, depression, and post-traumatic stress disorder. Medical hypotheses. 2012 May 1; 78(5): 571-9.
32. Ferreira-Vorkapic C, Borba-Pinheiro CJ, Marchioro M, Santana D. The Impact of *Yoga Nidra* and Seated Meditation on the Mental Health of College Professors. Int J Yoga. 2018 Sep-Dec; 11(3): 215-223. doi: 10.4103/ijoy.IJOY_57_17. PMID: 30233115; PMCID: PMC6134749.
33. Mathur D, Goyal K, Koul V, Anand A. The Molecular Links of Re-Emerging Therapy: A Review of Evidence of Brahmi (Bacopa monniera). Front Pharmacol. 2016 Mar 4; 7: 44. doi: 10.3389/fphar.2016.00044. PMID: 26973531; PMCID: PMC4778428.
34. Mahajan D, Jamwal N, Ayurvedic management of Mental Health Disorders w.s.r. to Anxiety. J Ayu Int Med Sci. 2025; 10(7): 208-217.
35. Sharma RK, Dash B, translators. Charaka Samhita. Vol. 1, Sutrasthana. 3rd ed. Chapter 5, Verses 88-89. Varanasi: Chaukhamba Sanskrit Series Office; 2021.
36. Sharma RK, Dash B, translators. Charaka Samhita. Vol. 1, Sutrasthana. Chapter 5, Verses 81-82. 3rd ed. Varanasi: Chaukhamba Sanskrit Series Office; 2021.
37. Shastri AD, editor. Sushruta Samhita of Maharshi Sushruta. Vol. 3, Uttaratantra. Chapter 18, Verses 14-19. Varanasi: Chaukhambha Sanskrit Sansthan; 2018.
38. Sharma RK, Dash B, translators. Charaka Samhita. Vol. 2, Vimanasthana. Chapter 8, Verse 119. Varanasi: Chaukhamba Sanskrit Series Office; 2021.
39. Sridhar MK. Understanding the mind and its functions: an Ayurvedic perspective. J Ayurveda Integr Med. 2024; 15(1): 100822.
40. Singh RH. The Holistic Principles of Ayurvedic Medicine. 1st ed. Varanasi: Chaukhamba Sanskrit Pratishthan, 2014; p. 245-250.