

A Critique on Internet Addiction Disorder (IAD) and Ayurveda Treatment Strategies Over It.

Pranali A. Nagdeve*¹, Ravi K. Golghate²

1. Assistant Professor
2. Assistant professor H. O. D.
 Dept. Of Rognidan, B.S. Ayurved college, Sawantwadi, Maharashtra

*Corresponding Author: Email id - sweet.nagdeve@gmail.com, Ph. No.: 9405225217

Abstract: Internet addiction Disorder (IAD) has been described as an emerging psychiatric disorder. It has become a major public health issue worldwide and is closely linked to psychiatric disorders and suicide. Ayurved is a holistic science that provides prevention and curation in physical psychological domains. In this review article the efforts have been made to find solutions over IAD in the *Ayurvedic* way. The present study aimed to review the Internet Addiction Disorder and its *Ayurvedic* treatment strategies. Ayurved is a holistic science that provides prevention and curation in physio psychological domains. With the help of Ayurveda treatment strategies, we can stop the world from getting addicted to the IAD and its harmful consequences over health.

Keywords: Internet Addiction Disorder, Ayurveda, Psychology, *Manas Roga*

Introduction: Internet addiction Disorder (IAD) has become a major public health issue worldwide and is

closely linked to psychiatric disorders and suicide. IAD was originally proposed as a disorder by Ivan Goldberg in 1995 (1). Internet and computer use are ingrained in contemporary society and have changed the way we live our lives more than any other technological medium yet. Despite this, little is known about the effects of internet addiction on mental functioning, mental health, and general well-being. Some people spend so much time on computers and the internet that it is beginning to affect their daily lives. When a behavior or desire becomes an obstacle and takes precedence over the most important aspects of life such as relationships, work, or school, it can be classified as an addiction(1).

Internet addiction is not yet listed in the latest edition of the Diagnostic and Statistical Manual of Mental Disorders (commonly referred to as DSM-5). But a two-year study funded by the National Institutes of Health could change that. It may provide enough

evidence that it deserves serious attention from the mental health and psychiatric community. Experts who recognize internet addiction tend to classify it as either OCD or an impulse control disorder to aid in treatment. Internet addiction is also known as compulsive computer use, morbid Internet use, and Internet addiction(2).

Internet addiction has been described as an emerging psychiatric disorder, but many mental health practitioners and researchers are uncertain if it should be considered a legitimate mental disorder. The threat of Internet Addiction Disorder (IAD) increases as long term use of the internet by the users causes high risk of irregular dietary habits, high frequency of skipping meals, inappropriate and disturbed daily structural routine, lifestyle disorders etc. which in turn could result in stunted growth and development. Internet Addiction Disorder arises from the phenomenon of the Internet now being a part of the average person's daily life. It is undeniable that the Internet provides people with the abilities to easily acquire information, learn new things, gain and maintain relationships, and make money. Internet addiction does not cause the same type of physical problems as other addictions, such as alcohol, but the social problems parallel these of other established addictions like loss of control, cravings and withdrawal symptoms, social isolation, marital discord, academic failure, excessive financial debt, job termination - these are just some of the related consequences. The field of Internet addiction is advancing rapidly even without its official recognition as a separate and distinct behavioral addiction and with

continuing disagreement over diagnostic criteria. A growing disaffected and highly innovative population has created an environment in which the saturated use of computers and their added benefits are orthodox. is not a problem. Computers can be carried without inconvenience (3,4). The desire for unlimited use of the Internet is a fairly new concept that has only been published very recently, so there has not been much research done in this area and whether it exists is still a highly controversial question. Some people say that the Internet is highly addictive and controls their lives. Others say it's not the same as getting high or getting extremely drunk. Yet, whether you call it an addiction or not, the Internet is affecting people who use it extensively(3,4,5,6).

As one of the common mental health problems, internet addiction disorder (IAD) is currently becoming more and more serious(7). In recent years, Internet usage has increased at a staggering rate all over the world. The Internet provides remote access to others and a wealth of information in all areas of interest. However, inappropriate internet use is leading to poor personal psychological health, academic failure, and poor job performance(8). Although not yet formally codified within the psychopathological framework, IAD is becoming more common and attracting the attention of psychiatrists, educators, and the general public. Their relatively immature cognitive control puts them at a higher risk of developing IAD. Some of his teenagers can't control their impulsive use of the internet to research novelty and eventually become internet addicts. In Ayurved the concept of *Heena* (Less), *Ati* (Excessive) and

Mithya (Inappropriate) *Yoga* (combination) of *Indriya* (Sense organs) and *Astmyaindriyarth* *Samyoga* (Indulgence in unhealthy subjects of sensory organs) has been dealt which can be correlated with the Addiction in relation to the Sensory as well as Motor related dysfunctions. Ayurved is a holistic science that provides prevention and curation in physical psychological domains. In this review article the efforts have been made to find solutions over IAD in the *Ayurvedic* way. The present study aimed to review the Internet Addiction Disorder and its *Ayurvedic* treatment strategies.

What is an Internet Addiction Disorder:

Internet Addiction Disorder can be stated as "An individual is addicted when an individual's psychological state, which includes both mental and emotional states, as well as their scholastic, occupational and social interactions, is impaired by the overuse of [Internet]"(9). Problematic Internet Use (PIU) or Internet Addiction Disorder (IAD) is characterized by excessive or poorly controlled prejudices, impulses, or behaviors associated with computer use and Internet access that result in disability or distress. increase. Studies on patient samples have reported high comorbidity rates of internet addiction and mental disorders. Several factors indicate that Internet use is problematic, including personality traits, parental and family factors, alcohol use, and social anxiety(10). It may be a potential mental health problem. It may coexist with substance use disorder, attention-deficit hyperactivity disorder, depression, hostility, and social anxiety disorder.

Epidemiological Data:

- Adolescents (ages 12–19) and emerging adults (ages 20–29) have more internet access than any other age group and are at higher risk of excessive internet use, so internet behavioral problems are most relevant to young people (11). Use of the Internet is a contributing factor in nearly 50% of all relationship and family problems. 11% of the people going on-line are becoming compulsive or addicted(12). Surveys in the United States and Europe have indicated prevalence of between 1.5% and 8.2%, with varying diagnostic methods between countries. Data from the China Youth Internet Association (announcement on February 2, 2010) demonstrated that the incidence rate of internet addiction among Chinese urban youths is about 14%. It is worth noting that the total number is 24 million(13).
- Previous epidemiological studies using community self-report surveys have reported that the prevalence of IA in adolescents ranges from 38% to 90%. (14,15,16,17). The reasons for the different prevalence may be different study designs, different rating scales or different diagnostic criteria, cultural background and study sample. The conceptualization and definition of IA as a specific and

independent psychiatric disorder are still debated by medical professionals. One of the key criticisms is that IA is known to be highly comorbid with other psychiatric disorders such as attention deficit hyperactivity disorder (ADHD) (18,19), depression, anxiety disorders, low self-esteem, impulsivity, social anxiety and suicide(20,21).

5 Types of Internet Addiction (22):

Internet addiction is a broad term encompassing various behavioral and impulse control problems associated with the Internet, personal computing, and mobile technology. Although there are still no officially recognized criteria for diagnosing internet addiction, researchers have identified his five subcategories of specific types of computer and internet addiction.

- **Cybersex Addiction-** Cybersex addiction is one of the self-explanatory internet addictions. This includes online pornography, adult sites, sexual fantasies/adult chat rooms, and XXX webcam services. An obsession with any of these services can impair your ability to have sexual, romantic, or intimate relationships in the real world. Individuals with cybersex addiction have treatment options, usually in the form of interventions followed by ongoing inpatient or outpatient treatment.
- **Net Compulsions-** Network compulsions include online interactive activities that can be

extremely harmful, such as online gambling, stock trading, online auctions (such as eBay), and impulsive online shopping. These habits can be detrimental to financial security and disrupt work responsibilities. Spending or losing excessive money can also cause stress in relationships. With the immediate and easy access to online casinos and online businesses, it is easy for people prone to gambling and spending addictions to become online addicts.

- **Cyber (Online) Relationship Addiction-** Net and online relationship addicts are so preoccupied with finding and maintaining online relationships that they often forget or neglect their family and friends in real life. Online relationships are typically formed in chat rooms and various social networking sites, but they can be formed anywhere you can interact with people online. In many cases, people who maintain online relationships do so while hiding their true identities and appearances. This modern phenomenon has led to the creation of the term "catfish": after a person is preoccupied with social life and her online personality, when it comes to face-to-face interactions, social skills are limited and non-existent. Realistic expectations may remain. In many cases, this leads to an inability to connect to the real world and an individual to become dependent on cyber

connections. Counseling or therapy is usually required to treat this addiction and ensure lasting behavioral change. is required.

- **Compulsive Information Seeking-** The Internet provides users with a wealth of data and knowledge. For some, the ability to easily find information has turned into an uncontrollable urge to collect and organize data. In some cases, the search for information is a manifestation of pre-existing obsessive tendencies. Compulsive information searching can reduce worker productivity and even lead to job termination. Depending on the severity of the addiction, treatment options range from a variety of treatments to medications aimed at changing obsessive-compulsive behaviors and developing coping strategies.
- **Computer Or Gaming Addiction-** Computer addiction, also known as computer game addiction, includes both online and offline activities that can be performed using a computer. As computers became more popular, games such as Solitaire, Tetris, and Minesweeper were programmed into the software. Researchers quickly discovered that compulsive computer game playing was a problem in certain environments. Office workers spent an inordinate amount of time playing these games, resulting in significant productivity losses. Not only are these classic games available today, but thousands of new

games are also available, making the state of computer game addiction more prevalent and harmful than ever.

Microstructure abnormalities with Internet Addiction Disorder (IAD):

- Recent studies suggest that Internet addiction disorder (IAD) is associated with structural changes in the brain that likely contribute to chronic dysfunction in IAD patients(23).
- Subjects with IAD were shown to have lower information processing efficiency and lower cognitive control. Some researchers also found gray matter density deficits and resting state abnormalities in his IAD subjects, including: Right cingulate gyrus, bilateral Para hippocampal and other brain regions (24).

Physical and psychological symptoms due to IAD:

Internet addiction can have many harmful effects on a person, both physically and mentally. Body aches, carpal tunnel syndrome, insomnia, visual disturbances, and weight gain/acceptance are just a few of the physical problems you may suffer as a result of internet addiction. These include dishonesty, anxiety, social isolation, aggression, and mood swings. A 2016 research study showed that people categorized as the Internet (using Dr. Young's Internet Search Test) had far more problems coping with everyday activities. This includes home life, work/school related

responsibilities, and the ability to socialize in the real world. Individuals with this type of addiction also had significantly more symptoms of depression and anxiety. There is debate as to whether computer, cell phone, or online addiction is a cause or consequence of such mental health problems. ADHD symptoms such as B. Difficulty planning ahead, time management Poor Internet addiction and higher-than-average attentional impulsivity are also common in Internet addicts. In addition, people with addictions are more likely to have comorbid disorders that require special care and treatment(25). Physical symptoms include poor sleep, a weakened immune system due to lack of exercise, an increased risk of carpal tunnel syndrome, and eye and back strain. Withdrawal symptoms include restlessness, depression, anger, and anxiety when a person is away from technology. These mental symptoms can even translate into physical symptoms such as increased heart rate, stiff shoulders, and shortness of breath (26).

IAD through Ayurveda perspective:

Usually, the word ‘addiction’ is used in the negative sense. It has been defined with regard to psychoactive, so according to Ayurveda the concept of *Asatmyeindriyartha* *Samyoga* (Indulgence in unhealthy subjects of sensory organs) goes much equivalent with today’s Internet Lifestyle Disorders. Ayurved terms this condition as ‘*Madatyaya*’ (Alcoholism) which means intoxication. Though Ayurved restricts this condition to alcohol and drug use, the mode of treatment is very effective for Internet Addiction too. According to

Ayurveda, any intoxicating material reduces the essence of life (*Ojas*) (27).

How does IAD affect *Dosha* (Body Constitution)?

- *Vata*: Headache, difficulty in breathing, insomnia, vivid dreams, dry hallucinations, anxiety, constipation, mood swings, erratic thoughts.
- *Pitta*: Burning in the stomach and digestive problems, thirst, diarrhea, fever, giddiness, aggression and violence.
- *Kapha*: Excessive sleep, lethargy, heaviness in the body, nausea, and vomiting.

Ayurvedic Solutions in the treatment of IAD-

There is no specific treatment that should be used to combat internet addiction. Different treatments are effective, depending on the severity of the poisoning and individual behavior. If someone you know is experiencing excessive internet abuse, the first step is to plan an intervention or express concern about their behavior. There are numerous effective treatments available to treat *Manovaha srotas* vitiation.

***Nidan Parivarjan* (Limited access to internet)-**

According to Acharya *Sushruta*, strict avoidance of the root cause is called '*Nidan Parivarjan*'. In case of IAD, patient can use following tricks-

1. **Track Your Time-** Keep track of your time. Use software like *Klok* for Windows/ Mac or Project Hamster for Linux (Gnome). It works like a diary, allowing you to see exactly how you've been spending time on your computer.
2. **Go on an Internet Diet -** Allow yourself the privilege of going online only between 9 am–9 pm. All online activities MUST stop after 9 pm. Use the time to organize your surroundings. Clean your room, iron your clothes, prepare for tomorrow, read a book, clean your wallet/purse, spend time with your family, friends or pet and any other thing that you've been putting off. Focus on identifying the time wasters in your life and eliminate them.
3. **Take Frequent Breaks-** Focusing on work or play is just like sleeping. You go deeper and deeper by stages. By taking breaks, your mind and eyes are interrupted from being connected. You get much needed rest and blood flows better. If you are on Windows or Linux, use the excellent time out program called Work rave that reminds you to take short and long breaks at intervals of your choice. Set 30 second breaks every 29.5 minutes and 5 minute breaks every 55 minutes. If you are on Mac, try Time Out or Eye *LeLeo*.
4. **Identify and Ban Addictive Sites-** If everything else fails, try it. Immediately disconnect and remove yourself from highly addictive social network sites. If

it's not essential for your work or for you to breathe, don't keep or visit it. Facebook, Twitter, Windows Live Messenger, WhatsApp, all of it. Instead, go back to basics. Use email.

***Sadvritta Palan* (Ideal Path of Good Conduct in Life):**

In Ayurveda, for prevention of *Manas rog* (psychological diseases), the best way is to increase the *Sattva* (mind strength) and to increase the *sattva*, acharya has mentioned the concept of *Sadvritta Palan*. '*Sadvritta Palan*'. 'Sad'- means good and 'Vritta' - means regimen. This is the code of conduct for keeping a good or balanced condition of body and mind. Acharya *Charak* explained some rules of good conduct and said that exercise of the ideal conduct leads to restraining of senses and mind also gets controlled in sequence. *Sadvritta* (personal and social code of conduct) as per mentioned in Ayurveda will help to gain a long, happy, peaceful and healthy life. The codes of conduct can be divided as - Ethical (*Vyavaharika sadvritta*), Social (*Samajika sadvritta*), Mental (*Manasika sadvritta*), Moral (*Dharmik sadvritta*) and Physical (*Sharirika sadvritta*)(28, 29).

Application of *sadvritta Palan* in IAD:

Under the heading of mental and physical *sadvritta*, following ways can be followed in IAD:

- **Sports:** Spend more time outdoors. Play sports that require teamwork like soccer, tennis,

table tennis, basketball, volleyball, badminton etc. You can Join swimming, skating, cycle, hike, or jog. Once you discover a sport that you really enjoy, your social life improves every week, you'll have something exciting to continue looking forward to.

- **Music:** Learn to play a musical instrument. A piano is fairly easy although not as available. Any stringed instrument is definitely challenging but very rewarding. You can start off with a basic guitar, slowly working your way to more popular yet hard songs as you go along. Listening to music is a good treat as well.
- **Dance(30)-** One of the most amazing things about classical dance is its ability to be used in therapy. It's one of the most common forms of treatment used today. For one, it helps improve coordination, balance and posture. It also helps improve mental health by boosting self-confidence and self-esteem. Additionally, it can help relieve stress and anxiety. Mentally, it can help improve focus, discipline, creativity and self-confidence. If you're looking for an activity that can benefit your body and mind, classical dance is worth considering. Learn salsa, belly dancing, ballroom, flamenco, swing, etc. It teaches you endurance, grace, creativeness, articulation and timing; a much better thing to get addicted to than sitting in front of the computer all day.

- **Volunteer-** Your local animal shelters are always in need of volunteers, whether you are able to spend a few hours a week or go in once a month. Work for not-for-profit, and charitable organizations that are committed to positively impacting the lives of individuals.

Acharya Rasayana:

Acharya-Mental attitude, *Rasayana-* Rejuvenating therapy. This story in the classics has a direct influence in maintaining the mental and spiritual well being(31).

1. Be honest
2. Let go of anger
3. Don't indulge in alcohol or sex
4. Non-violence
5. Stay calm
6. Sweet Speech
7. *Japa - Mantra* Meditation
8. Cleanliness - Routine hair, nail trimming, daily bathing
9. Perseverance - Unwavering in the face of adversity
10. Compassion - For the less fortunate and needy give to
11. Regular worship and offerings to teachers, elders, gods, cows and priests
12. Obedience to love and compassion
13. Balance between wakefulness and sleep
14. *Sattvic* meals with regular consumption of milk and ghee
15. Time, place, evaluate all situations taking into account the environment
16. 17. Simple and egoless
18. Use your senses in spiritual activities
19. Develop a company of "elders" or saints - those who have wisdom
20. Surround yourself with uplifting and positive company
21. Practice optimism
22. Self-discipline
23. Devotion to scripture study[18]. His *Acharya Rasayana* Guide, described in *Charaka Samhita*, encourages a moral path of integrity that is directly related to a person's state of health(32). By

following these rules, one can overcome IAD and coexisting conditions.

Sattvajay Chikitsa (Ayurved Psychiatry Treatment):

Wahlberg's comprehensive definition of psychotherapy in 1967 states: It improves behavioral patterns and promotes positive personality growth and development. "This new account of modern psychotherapy fits squarely into the thousands-year-old SC account of Ayurveda(33,34,35,36). *Sattvavajaya* consists of two words, *sattva* and *avajaya*. Here *sattva* refers to the intellect, consciousness or mind, and *avajaya* controls it (37). *Chikitsa* means treatment/management(38). SC enhances *sattva* to correct maladaptive symptoms caused by *rajas* (arrogance) and *tamas* (lethargy), which are believed to be psycho fluid-causing ailments. SC is defined as a therapy of various methods to help control *mana* (mind) moving towards *ahita artha* (distracted and unhealthy objects/thoughts/perceptions) (39,40). The goal of SC is to provide *Mano Nigraha* (controlling of mind) from *Ahitaartha* (unwholesome thoughts).

Methodology of Sattvavajaya Chikitsa(41)-

The SC permits the physician's interference with the patient's mind control. This can be achieved in various ways. These ways are termed as "methodology" of SC. By following these methodologies, SC not only negates the negative thoughts but also endeavors to replace them with positivity.

1. *Chintya*- Regulating the thought process
2. *Vicharya*- Replacing the ideas
3. *Uhya*- Channeling the presumptions
4. *Dhyeya* - Polishing the objective
5. *Sankalpa*- Proper guidance or advice for taking the right decisions.

Domains of SC used in the treatment of IAD-

SC has been shown to be effective as monotherapy or in combination with other therapies in numerous *Manovikar* studies. SC has the potential to redefine the ancient art and science of psychotherapy and create new dimensions. SC evokes awareness, works at the discriminative level, discerns negative/maladaptive thoughts, brings firmness, strength and stability.

(42,43,44,45).

Yuktivyapashray Chikitsa:

Therapies to reduce the severity of symptoms and to improve overall health and well being, such as cleansing treatments like *Abhyanga* (External Massage), *Basti* (Enema), *shirodhara* (oil pulling). Therapies to improve health and disease resistance – such as herbal medicines and dietary changes. *Ashwagandha*, *Brahmi*, *Amalki*, *Shankhpushpi*, *Tulsi*, *Haridra*, *Kutki* etc. along with *shiro dhara* & *shiro basti*, *nasya*, *shiro abhyanga*, *padabhyanga*, *marma chikitsa*, *alabu karma*, *Yoga*, *pranayam* and naturopathy are very effective in treating IAD disorders(46).

Yoga:

As per yoga sutras of *Patanjali*, *yama* (ethical rules), *niyama* (principles for social well being), *asana* (yoga posture), *pranayama* (breathing techniques), *pratyahara* (control of sense organs), *dharana* (continued attention to object), *dhyana* (meditation), and *Samadhi* (super-consciousness) are stages of the gradual withdrawal of consciousness from outward contact and a simultaneous rising into wider and wider dimensions of itself, culminating in infinitude which is its standard essence(47). Long-term yoga practitioners have reported musculoskeletal and mental health improvements. The physical exercises (*asanas*) may increase a patient's physical flexibility, coordination, and strength while the breathing practices and meditation may calm and focus the mind to develop greater awareness and diminish anxiety(48,49). Many researches have proved that yoga is effective in the treatment of Mental illness(50,51,52). The set of *asanas* which has proven effect on management of depression are *Bhramaripranayama*, *Nadi Shodhana pranayama*, *Navasana*, *Bhujangasana*, *Urdhvaprasaritapadasana*, *Makarasana*, *Adhomukhasavasana*, *Ardamerudandasana*, *Tadasana*, *Ardakatichakrasana*, *Vrikshasana*, *Shalabhasana*, *Gomukhasana*, *Vajrasana*, *Mulabanda/mahamudra*, *Savasana*, and *Ardapavanamukthasana*(53).

Psychological benefits are seen such as increase in subjective well-being, self-acceptance, self-actualization, social adjustment, decrease in anxiety and

depression. *Asanas* particularly have a positive effect on the mental state, while the *pranayama* practices and relaxation/meditation techniques may result in greater awareness, less stress, and higher well-being and quality of life. Yoga can work efficiently over Root Cause and Psychosomatic symptoms related to IAD. As Yoga increases one's Mental and physical strength, it can definitely prove effective in the successful de-addiction of cybersex, cyber relationship and gaming.

Conclusion:

Internet addiction (IAD), one of the most common mental health problems, is becoming more and more serious today. Please consider doing more research to determine the correct way forward. However, be careful not to wait too long before taking steps to fix the problem. Time is a precious commodity and should not be sacrificed too much for technological tools designed to serve us. Ayurveda is an integrated science that offers prevention and healing in the physical and psychological domains. With the help of Ayurveda treatment strategies, we can stop the world from getting addicted to the IAD and its harmful consequences over health.

References:

1. Treuer, T., Fabian, Z., & Furedi, J. (2001). Internet addiction associated with features of impulse control disorder: Is it a real psychiatric disorder? *Journal of Affective Disorders*, 66,283.

2. <https://www.addictioncenter.com/drugs/internet-addiction>
3. Hilarie Cash, Cosette D Rae, Ann H Steel and Alexander Winklerb, *Curr Psychiatry Rev.* 2012 Nov; 8(4): 292–298
4. Christopher L. Heffner, Maria Garcia Duran, *Internet Addiction Disorder All Psych Journal*, 2003 December ; 4(3): 494–498.
5. Dwivedi, C. B; Swasthavritta: The Ayurvedic model of health and well-being. *Health Psychology*, 2005, p. 353371.
6. Singh AR, Singh SA. Replicative nature of Indian research, essence of scientific temper, and future of scientific progress. *Mens Sana Monogr.* 2003; 1:3–16.
7. Cao F, Su L, Liu T, Gao X (2007) The relationship between impulsivity and Internet addiction in a sample of Chinese adolescents. *European Psychiatry* 22: 466–471. View ArticleGoogle Scholar.
8. Scherer K (1997) College life on-line: Healthy and unhealthy Internet use. *Journal of College Student Development* 38: 655–665. View ArticleGoogle Scholar.
9. Beard KW (February 2005). "Internet addiction: a review of current assessment techniques and potential assessment questions". *Cyberpsychology & Behavior.* 8 (1): 7–14. doi:10.1089/cpb.2005.8.7. PMID 15738688.
10. Aviv Weinstein, Laura Curtiss Feder, Kenneth Paul Rosenberg, Pinhas Dannon, Chapter 5 - Internet Addiction Disorder: Overview and Controversies, Editor(s): Kenneth Paul Rosenberg, Laura Curtiss Feder, Behavioral Addictions, Academic Press, 2014, Pages 99–117, ISBN 9780124077249, <https://doi.org/10.1016/B978-0-12-407724-9.00005-7>.
11. Anderson EL, Steen E, Stavropoulos V (2017). "Internet use and Problematic Internet Use: A systematic review of longitudinal research trends in adolescence and emergent adulthood". *International Journal of Adolescence and Youth.* 22 (4): 430–454. doi:10.1080/02673843.2016.1227716. S2CID 152003110.
12. Chak, K., & Leung, L. (2004). Shyness and locus of control as predictors of internet addiction and internet use. *CyberPsychology and Behavior,* 7, 559–570
13. <http://www.zqwx.youth.cn/>
14. Tsai HF, Cheng SH, Yeh TL, Shih CC, Chen KC, Yang YC, et al. The risk factors of Internet addiction—a survey of university freshmen. *Psychiatry Res.* 2009;167:294–9. 10.1016/j.psychres.2008.01.015 [PubMed] [CrossRef] [Google Scholar]
15. Lin MP, Ko HC, Wu JY. Prevalence and psychosocial risk factors associated with internet addiction in a nationally representative sample of college students in Taiwan. *Cyberpsychol Behav Soc Netw.* 2011;14:741–6. 10.1089/cyber.2010.0574 [PubMed] [CrossRef] [Google Scholar]

16. Kardefelt-Winther D. A conceptual and methodological critique of internet addiction research: toward a model of compensatory internet use. *Comput Human Behav.* 2014;31:351–4. [Google Scholar]
17. Goel D, Subramanyam A, Kamath R. A study on the prevalence of internet addiction and its association with psychopathology in Indian adolescents. *Indian J Psychiatry.* 2013;55:140–3. 10.4103/0019-5545.111451 [PMC free article] [PubMed] [CrossRef] [Google Scholar]
18. Alavi SS, Maracy MR, Jannatifard F, Eslami M. The effect of psychiatric symptoms on the internet addiction disorder in Isfahan's University students. *J Res Med Sci.* 2011;16(6):793–800. [PMC free article] [PubMed] [Google Scholar]
19. Dalbudak E, Evren C, Aldemir S, Coskun KS, Ugurlu H, Yildirim FG. Relationship of internet addiction severity with depression, anxiety, and alexithymia, temperament and character in university students. *Cyberpsychol Behav Soc Netw.* 2013;16:272–8. 1089/cyber.2012.0390 [PubMed] [CrossRef] [Google Scholar]
20. Lin IH, Ko CH, Chang YP, Liu TL, Wang PW, Lin HC, et al. The association between suicidality and Internet addiction and activities in Taiwanese adolescents. *Compr Psychiatry.* 2014;55:504–10. 10.1016/j.comppsy.2013.11.012 [PubMed] [CrossRef] [Google Scholar]
21. Kim K, Ryu E, Chon MY, Yeun EJ, Choi SY, Seo JS, et al. Internet addiction in Korean adolescents and its relation to depression and suicidal ideation: a questionnaire survey. *Int J Nurs Stud.* 2006; 43:185–92. [PubMed] [Google Scholar]
22. <https://www.addictioncenter.com/drugs/internet-addiction>
23. Yuan K, Qin W, Wang G, Zeng F, Zhao L, Yang X, et al. (2011) Microstructure Abnormalities in Adolescents with Internet Addiction Disorder. *PLoS ONE* 6(6): e20708. <https://doi.org/10.1371/journal.pone.0020708>
24. Jun L, Xue-ping G, Osunde I, Xin L, Shun-ke Z, et al. (2010) Increased regional homogeneity in internet addiction disorder: a resting state functional magnetic resonance imaging study. *Chinese medical journal* 123: 1904–1908. View ArticleGoogle Scholar
25. <https://www.addictioncenter.com/drugs/internet-addiction>
26. Rosen, Larry D., et al. "Social Networking Is Addictive and Can Lead to Psychological Disorders." *Are Social Networking Sites Harmful?*, edited by Noah Berlatsky, Greenhaven Press, 2015.
27. Peter M. Yellowlees, , Shayna Marks; Problematic Internet use or Internet addiction?; *Computers in Human Behavior* 2007; 23 1447–1453.

28. 15. Agnivesha: Charaka samhita, revised by charaka and Dridhabal, with commentary of chakrapanidatta, edited by jadavaji trikamaji acharya, chaukhambha Sanskrit sansthana, Varanasi, 5th Edi.2001. sutrasthan. 9/3, page no.61.
29. 16. Thorat Vidhyashree J., Role of Code of Conducts of Life (Sadvritta) in Prevention of Crimes, Int. J. Ayu. Alt. Med., 2015; 3(4):194-198
30. <https://unacademy.com/content/nda/study-material/general-knowledge/importance-of-classical-dance>.
31. Agnivesha: Charaka samhita, revised by Charaka and Dridhabal, with commentary of Chakrapanidatta, edited by Jadavaji trikamaji acharya, chikitsasthan 1/30-35. Chaukhambha Sanskrit sansthana, Varanasi, 5th Edi.2001.
32. Agnivesha: Charaka samhita, revised by charaka and Dridhabal, with commentary of Chakrapanidatta, edited by Jadavaji trikamaji acharya, sutra sthana 8/18 chaukhambha Sanskrit sansthan, Varanasi, 5th Edi.2001.
33. Dr Ali K, Sarmah J. Review article; an ayurvedic perspective to cognitive behaviour therapy vis a vis Satwavajaya Chikitsa. Int J Ayurveda Pharm Res 2016; 4:425.
34. Avasthi A, Anthony R. Psychotherapy in the Indian context. J Clin Psychiatry 1998; 3:26-8.
35. Murthy ARV, Singh RH. The concept of psychiatry in Ayurveda with special reference to Sattvavajaya Chikitsa: Ancient Science of Life 1987; 6:255-61.
36. Tripathi JS. Review article on Ayurvedic psychotherapy. Ann Ayurvedic Med 2012; 1:31-8.
37. Madhushree RN, Suhas KS, Savitha HP, Narayan Prakash B. Research article; Role of Panchagavya Gritha in the management of Atattvabhinivesha (Obsessive Compulsive Disorder). Int Ayurvedic Med J 2015; 3:263746.
38. Apte VS. The Student's Sanskrit-English Dictionary. 2nd ed. Delhi: Motilal Banarasidas Publication; 1970. p. 207.
39. Dhimdime RS, Pawar KB, Kodape DT, Dhimdime SR, Baghel P. Review article; 'Concept of the interrelationship between Manas and Sharira w.s.r to Ayurveda treatment. Int J Ayurveda Pharm Res 2017; 5:703.
40. Acharya Yadavji Trikamji, editor. Ayurveda Deepika Commentary of Chakrapanidatta on Charaka Samhita, Sutra Sthana 11/54, Reprint Edition. Varanasi: Chaukhamba Publications; 1987.
41. Dr Ali K, Sarmah J. Review article; an ayurvedic perspective to cognitive behaviour therapy vis a vis Satwavajaya Chikitsa. Int J Ayurveda Pharm Res 2016; 4:425.
42. KoSingh S, Tripathi JS, Rai NP. An appraisal of the bioavailability enhancers in Ayurveda in the

- light of recent pharmacological advances. *Ayu* 2016; 37:3-10. 19.
43. Dr.Vedvrat Alok, Patanjali Yoga Shastra Sutra- vivaranam,2nd Edition; New Delhi; Kendriya Yoga evam Prakrutik Chikitsa Anusandhan parishad, AYUSH Dept.2007.p.279.
44. Birdee GS, Legedza AT, Saper RB, Bertisch SM, Eisenberg DM, Phillips RS. Characteristics of Yoga Users: Results of a National Survey. *J Gen Intern Med.* 2008;23:1653–8.
45. Kirkwood G, Rampes H, Tuffrey V, Richardson J, Pilkington K. Yoga for anxiety: a systematic review of the research evidence. *British Journal of Sports Medicine.* 2005;39(12):884–891.
46. Uebelacker LA, Epstein-Lubow G, Gaudio BA, Tremont G, Battle CL, Miller IW. Hatha yoga for depression: critical review of the evidence for efficacy, plausible mechanisms of action, and directions for future research. *Journal of Psychiatric Practice.* 2010;16(1):22–33.
47. Brown RP, Gerbarg PL. Sudarshan Kriya Yogic breathing in the treatment of stress, anxiety, and depression: part II—clinical applications and guidelines. *Journal of Alternative and Complementary Medicine.* 2005;11(4):711–717.
48. Brown RP, Gerbarg PL. Sudarshan Kriya yogic breathing in the treatment of stress, anxiety, and depression: part I—neurophysiologic model. *Journal of Alternative and Complementary Medicine.* 2005;11(1):189–201.
49. Bhavanani, A.B. (2012). Yoga and health care. *Annals of SBV*,1(2).

Conflict of Interest: Non

Source of funding: Nil

Cite this article:

A Critique on Internet Addiction Disorder (IAD) and Ayurveda Treatment Strategies Over It.
Pranali A. Nagdeve, Ravi K. Golghate

Ayurline: International Journal of Research In Indian Medicine 2023; 7(2):01- 14