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Screen media and its impact on children

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ABSTRACT:

Screen media includes any media that is produced for or distributed via the screen, including television, computer, tab, smart phone etc. Due to the inadequacy of time and the increasing workload, parents resort to gadgets and smart screen to engage their children. Studies suggest that maximum brain development occurs by the age of seven and the content, children see or hear at this age will shape their entire future. Screen media play an imperative role in influencing the developmental stages of a child. Both positive as well as negative role can be attributed to any advancements in technology including, the screen media. Excess use of gadgets especially in children may direct to screen addiction that leads to impaired daily functioning in terms of productivity, social relationships as well as emotional wellbeing. Screen addiction management strategies are bidirectional which includes providing psycho education to the parent and also advising behavioral modification for the child. Here the pros and cons of screen media, screen addiction and also the selected aspects of management with special reference to the Ayurvedic approach are being highlighted.

Key words: - Screen media, screen addiction, psycho education, mental health, Satvavajaya, rasayana

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INTRODUCTION

Media are the communication tools used to store and deliver information or data¹. Any media that is produced for or distributed via the screen, including the entire spectrum of what constitutes 'the screen': the cinematic screen, the television screen, the computer screen, and the small screens accessed on smart phones and other handheld devices. Screen use among kids has exploded over the past decade. Screen time or media time is any period of time spent viewing or using TV/video, video games, computers, handheld video game players, cell phones, smart phones, iPods/iPads/androids, or any other digital tablet device. Most young children have working parents who have miniature time to spend with them and resort to modes of technology as a baby sitter or a shut up

toy. The lack of outdoor activity is having a significant impact on the health of a child². Toddler's addiction to technology is a very common problem in the Modern day world. Good parenting involves serving kids to develop social skills and monitoring how they use the media. It is quite important for the physicians to discuss with the parents regarding their child's exposure to media and to provide appropriate guidance on the age-appropriate use of all media, including cartoons, music, video games and the Internet. Management techniques for screen addiction include both pharmacological as well as non-pharmacological methods, among which non pharmacological methods are more preferable and useful.

Positive impact of media

Even though there are several harmful effects due to the increased media usage in children, a few associated beneficial effects are worth discussion here. The major positive impact of the screen use include socialization³, communication, accessing health information and also as an educational tool. Any information about the health concerns can be accessed easily online. Children with any chronic illness can develop supportive networks of people with similar conditions. Enhanced opportunities to learn about the various health issues and communicating with the doctors are made possible, using the media. But parents have to be vigil on whether their children are using reliable online resources.

Socialization is responsible for the transformation of a helpless infant, described as a biological being in to a social being capable of thinking, talking and acting. Screen media helps children connect with extended family and friends mentally rather than physically, peculiarly in the days of ongoing health scenario. It encourages freedom of self-expression and helps motivate the children to get better at communication. It

helps children to overcome shyness due to constant interactions in the social media. Use of screen media in education provides students with the ability to get supplementary useful information. Students participate directly in their own learning rather than passively absorbing information referred to as active learning⁴. Latest data on the various school subjects are available through media sites on demand.

Children throughout the world had been affected by the school closure due to COVID -19 pandemic. Online learning has been used to fill a lot of gaps in the education field. In the present scenario, the importances of online media have dramatically increased. Classes are shared through online learning platforms and made accessible to children. This can compensate their academics that have been mislaid due to this massive epidemic. Digital interactions can make them feel less socially excluded. Also the boredom felt by children in the initial period of lock down was replaced by the judicious use of digital media.

Influence of media on the developmental stages of a child

Developmental stages of a child include

Cognitive development, Social and emotional development, Speech and language development, and gross and fine motor development.

Media in cognitive development

Cognitive impact⁵ of media depends on the amount of exposure, program content, nature of the program and also the social context of viewing. Educational programs are more helpful in areas of vocabulary and in fact the academics. Educational apps are the latest technological advancement byproducts that promote the importance of videos and pictures more than conventional text and descriptions. The lessons transforming in to animations or videos enhance the keen interest in learning. It enables the child to stay connected with the teachers and friends. Parents are also able to track the progress of their child and these apps are accessible the whole day.

Extensive media usage for two or more hours leads to negative attitudes towards schooling and even poor homework completion⁶. Poor grades and long term academic disappointment will be the outcome. Media have a negative influence on the ability to focus and sustain attention. Sounds and games in the middle of a story

or rhymes add even more distraction to the child. Children who have learnt alphabets from the big screen cannot concentrate on words in a book. A violent content in the media is capable of influencing antisocial or aggressive behavior in them⁷. Sexual content triggers the early toddlers mind to be attracted to the anatomy of the opposite gender. Children who are watching pornographic content are likely to display interest in sexual activities much earlier than their peers⁸.

Media in social and emotional development

Children at an infant stage are not able to understand emotions or social behavior. Surrounding environment determines the perception of a set emotional reaction and social interaction⁹. The variety of content children are exposed to makes the difference. Children will have the chance to become nonsocial instead of social and physically active state, due to the mass media. If these devices become the predominant method to calm and distract a young child, they may not be able to develop their own internal mechanisms of self-regulation. Video games¹⁰ makes the children smarter; they may achieve high level of thinking skills, enhances the child's leadership capabilities and improve their

competition skills. Even though these benefits are at one hand, negative outcomes associated with video game use in children are also significant. Constant correlation between violent game use and aggression has been proved by studies. Videogames can promote antisocial behavior or social isolation as well.

W.H.O. declared gaming addiction as a mental health disorder in 2018. Kid's addiction to games increase depression, anxiety and even social phobia. Social phobia denotes the fear to face a real social situation. It produces similar effect on the kid's brain as that of addiction to alcohol and drugs. Reduced self-control system due to gaming addiction causes increased susceptibility to other forms of addiction and impulsive or risky behaviors in later life. Studies report that amygdala, the impulsive part of the brain was smaller and more sensitive in excessive game players than non players¹¹. Other major health issues include headache, vision disturbances and disruption in sleep.

Media in language and motor development

The more the handheld screen time, more likely the child is having possibility to have delay in expressive speech and

comprehension¹². Low language proficiency is also being noticed in preschool children with the cartoon and also adult program exposure. Spelling errors are also common in such children. There is lack of development in the expected fine motor skills of the child. Screen media have a negative impact even on the handwriting of a child. Reduction in the physical activity can lead to obesity¹³ even at a much younger age. Habit of eating frequently peculiarly the junk food, while watching screen or dealing with gadgets are common in children nowadays. So they are exposed to high calorie low nutrient food. Food porn photos activate the reward center of the brain and compel the child to overeat. Couch potato is the term which is used to denote one who spends a great deal of time watching screen and eating a lot. This ultimately contributes to the metabolic disorders in the future.

Screen addiction

Screen addiction¹⁴ or digital addiction is an impulse control disorder that involves the obsessive use of mobile devices, internet or video games despite the awareness of negative consequences to the user. Screen use becomes so compulsive that leads to impaired daily

functioning in terms of productivity, social relationships, physical health or emotional wellbeing. Screen addiction is similar to any other addiction and proceeds through three identifiable stages. In the initial Craving stage, child often spend much on their screen at the expense of other activities, once they used to enjoy. In the second stage of Tolerance, child needs to spend more time on it to achieve the same sense of satisfaction. In the final or the Withdrawal stage, a stark change in mood and behavior of child, when devices are kept away or switched off is noticed.

Strategies of management

A multifaceted approach is quite essential for the management of Screen addiction which includes non-pharmacological as well as pharmacological methods. Non pharmacological methods are more preferred in the management and quite effective as well. Along with the key role of physician, parents, teachers as well as peers are having an imperative role in controlling such a situation. Teachers are capable of providing verbal instructions to control the screen usage. Classroom discussions of real life issues may be conducted and also have to ensure the

student participation in games and other extracurricular activities in schools. Teachers should give extra focus on the expansion of reading and writing skills in children.

Psycho education¹⁵ to the family members of the child are of much importance and seem to be successful as well. Behavioral modifications can also be advised to the affected child. These are a few techniques used to bring desirable changes in the pattern of behavior. For every good behavior, reward is pre-arranged and punishments are also advised for the awful behavior. Parents should govern their own screen use and must consider spending time together with the kids. Choose the right apps for the children and avoid providing smart phones.

Parents have to monitor the extent of screen use and also the content being accessed. American Academy of pediatrics¹⁶ prescribes the screen time guidelines for children. Under the age of 2, the children should not be exposed to any sort of screen time. Between 2 to 4 years, screen time should be limited to less than 1 hour a day and above 5 years of age, not more than 2 hours of daily recreational time. The gadgets are to be

completely avoided in the bedroom. The TVs and computers must be fixed in a common place and avoid buying own gadget to the child. 20-20-20 rule¹⁷ is advised by American Academy of ophthalmology. Take regular breaks every 20 minutes; shift the eyes to look at an object at least 20 feet away, for at least 20 seconds. Screen should be always viewed at an arm's length away from eyes.

Ayurveda perspective

Ayurveda is a system of medicine, which provides equivalent importance to the prevention of diseases and also promotion of health, along with the management of emerged diseases. Mind and body are considered to be the substratum of diseases. Any factor that can alter the function of the body can affect the mind and vice versa. So the control of mind is essential for the control of body and there by a healthy living. Various techniques are mentioned in our classics for the healthy control of mind. It is quite easy for an adult to manage the same but it will be difficult for a young child to restrain the mind from unwholesome things. The power to discriminate good and bad will not be much developed in the child and

the child commits unwholesome activities which is not conducive to the physical and mental health referred to as *prajnaparadha*¹⁸.

The stable mind or *prajna* is having three attributes - *Dhee*, *dhrti* and *smrti* and impairment in any/all of these domains can result in *prajnaparadha* - the contributory factor for the diseases. *Dhee* is the discriminative power that helps in determining good and bad. *Dhrti* refers to stability of mind, the factor which helps to restrain from unfavorable objects and *smrti* refers to the memory of past good and bad experiences. In the case of children addicted to screen media, there will be impairment of *dhi*, *dhrti* and *smrti* and the child may commit several unhealthy acts. In *prajnaparadha*, these codes of conduct explained in Ayurveda classics for the prevention of diseases are not maintained and there by resulting in diseases.

Ayoga (Inadequate utilization), *athiyoga* (excessive utilization) and *mithya yoga* (erroneous utilization) of the five *indriyas*¹⁹ (senses) are all considered harmful in due course. A child watching media for a prolonged point in time is unconsciously contributing to *atiyoga* and *mithyayoga* of the senses. The approach

mentioned in the classics - '*Na peedayethindriyani*'²⁰ which means not to give excessive stress or strain to our senses. Also the use of more of visual and auditory senses while viewing digital media, without involving other senses comes under *ayoga* or under-utilization of *indriyarthas*. A child not using any of these media also comes in the purview of sub-utilization of senses where the child will be lacking adequate knowledge of their age. He will be more introverted and socially less adaptive which is also unsafe.

Dietary patterns of present day children includes mainly junk foods, confectionaries etc resulting from the influence of advertisements in the media. Dietary factors play an important role in the manifestation of diseases. One who indulges in excess of these foods such as fried items, junk foods and tinned items succumb to *prajnaparadha* which can vitiate three *doshas* (humors) making a child susceptible to various ailments.

Lifestyle factors also play an equal role in the context of a healthy life. This can be equated to the *Sadvrta*²¹ concept explained in the classics. These are the moral codes of conduct to be followed for a healthy living. Newer technologies such

as media can hamper these and the child may indulge in abnormal sleep patterns, use of alcohol, smoking etc which can lead to behavioral changes. The concept of "*Anuyayat prathipadam sarvadarmeshu madhyama*" mentioned in classics is too relevant in the present scenario which conveys the idea to follow a middle path in the observances of all activities, not so more or less²². This means the child should be allowed to watch the media if interested, but by allotting healthy timings without causing harm.

Ayurveda psychotherapy or *Satvavajaya chikitsa*²³ have a predominant role in the management of excessive digital use. This include the five basic steps of *jnana, vijnana, dhairya, smrti* and *Samadhi*, which is being adopted as per the demand from the condition. *Jnana* include *atmajnana* or adequate knowledge about oneself. In this session, the strength, weakness, opportunities and threat of the child is analyzed. In the *Vijnana* stage, the child is given appropriate information about positive and negative impacts of media. In the *Dhairya* stage, educating about the self-control programs is included. Memorizing past experiences which are happier and engaged with

family members definitely provides an insight to the child. The child feels comfortable even without screen media after this process in the *smrti* stage of *satvavajaya*. In the final stage of Samadhi, mild relaxation techniques, meditation and pranayama are incorporated to manage the instincts of excessive addiction to media in the child.

If behavioral modification is not sufficient to keep the things under control, *Yuktivyaprasraya* therapy can be employed which includes the usage of *sodhana chikitsa* and *rasayana* procedures and also internal administration of selected drugs. The *dosha* status is analysed in the child as per the presenting symptoms and suitable medicines are prescribed. Drugs including *Yashti*, *Sankupuspi*, *Aswagandha* are commonly used for the management.^{24, 25} Amendment in the *ahara* and *vihara* have to be incorporated *Kusmanda*, *kshira*, *ghrta* and *navaneeta* can be advised to be used in the diet of children. Thus by following the dietary, lifestyle and behavioral modifications and also by the use of appropriate medicines, screen addiction can be effectively managed at the clinical level.

CONCLUSION

Media is a double edged sword. Along with the potentiality of providing several benefits it may also cause harm to the child's frame of mind. The uses of digital media cannot be kept aside in the modern world. Maintaining a reasonable boundary around the technology is one of the important areas to be stressed upon by all. Parents should be a good role model to the child in all aspects, peculiarly here in this regard. Teachers can lead an important role in early identifying the behavioral issues and also addressing the same. Physicians have a crucial role in the appropriate diagnosis and management. Thus a multifaceted approach has to be adopted for the management of screen addiction in children. Here the Ayurvedic light of knowledge which includes proper dietary and lifestyle management strategies, *satvavajaya* therapy and medicines on a conditional basis is capable of fruitful outcome. This area is having immense scope in the future and is yet to be explored.

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