

A survey study on Children screen time in the Varanasi district and it's management using indigenous traditional methods

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ABSTRACT

Digital screens in the shape of televisions, smartphones, tablets, computers, and other portable gadgets have spread around the world with the rise of new technology in the new millennium. Children of working mothers who experience work-related stress turn to screens earlier in life. Early exposure to excessive amounts of screen time is linked to negative outcomes include increased sedentary behavior, obesity, sluggish sleeping patterns, and developmental problems. According to American Academy of Pediatrics recommendations, children under the age of five should not spend more than one hour a day in front of a screen. However, the majority of studies on preschoolers' screen time usage reveal that the vast majority of the kids don't meet these parameters. Despite the fact that India is home to over a quarter of all children worldwide, little is known about how much time kids spend on screens. Only 15 studies that examined children's screen time without concentrating on the early childhood period (5 years) were found after searching Pub Med and Scopus using the keywords screen time, children, and India. The purpose of our study was to analyze the risk variables related with screen time among 8 to 16-year-old kids living in a Varanasi. As this study found increased screen time in children so, indigenous tradition method in the form of , ahara(dietary modification),vihara(indoor and outdoor games,yoga), herbs are been inculcated in there lifestyle.

Key Words: American Academy of Pediatrics, Pub Med and Scopus

INTRODUCTION

The amount of time spent using a screen-equipped device, such as a smartphone, computer television, or video gaming console, is referred to as screen time. The concept is under significant research with related concepts in digital media use and mental health. According to studies, screen time negatively affects kids' development as well as their mental and physical health. Levels and types of exposure have an impact on the health benefits or drawbacks of screen time. There is proof that excessive screen time is linked to obesity, with possible reasons including an increase in caloric intake, a reduction in time available for physical exercise, or even more directly, a decrease in metabolic rate. In addition, there is proof that excessive screen time has negative impacts on mood, irritation, and the development of the brain and socioemotional skills. According to the American Academy of Pediatrics (AAP) (2013), screen time has become the most common waking activity for many children and, for some children, can exceed the amount of time spent a sleep.

WHO released new guidelines in April stating that children under a year have no screen time and those under 5 have no more than one hour of screen time per day. The American Academy of Pediatrics recommends no digital media exposure for children under 18 months, only introducing children 18 to 24 months to screen time slowly, and limiting it to an hour a day for children from 2 to 5. The Internet Addiction Test (IAT; Young, 1998) is a 20-item scale that assesses the prevalence and severity of Internet dependence in adults. The IAT

was created by Dr Kimberly Young, a professor at St. Bonaventure University and the head of the Centre for Internet Addiction Recovery, to evaluate signs of Internet addiction and compulsivity in a range of contexts. The IAT views Internet addiction as an impulse-control disorder and the term Internet refers to all types of online activity⁽¹⁾

Mobile phones, which are used for communication and entertainment, have been associated with negative effects such as reliance, problematic use, and addiction. Addiction is described as the inability to control one's use or consumption of things excessively even when one is aware of the risks.⁽²⁾ Ayurveda categorises three conditions: Asatmendriyarthasamyoga (disproportionate interaction of sensory organs to sensorium), Kalaparinama (time-related change), and Prajnaparadha (intellectual error) as the root causes of all mental and physical ailments, and these three can be grouped together as addiction in the modern era. As a result of Prajnaparadha, a person's Ashubha karma (unlucky deeds) changes their behavioural patterns, and Hina (insufficient), Ati (excessive), and Mithya (inappropriate) yoga of the Gyanendriya (sensory organs) and Karmaendriya (motor organs) leads to various physical and mental ailments, which may be linked to the sufferings caused by prolonged use of smartphones.⁽³⁾

LITERATURE REVIEW

In Charak Samhita Acharya Charak has described improper use of sense organs as Asatmya indriyarthasamyoga i.e. Atiyoga (excessive use), Heenayoga (less use), Mithyayoga (wrong use) as the foremost cause of any disease. Excessive use of Chakshuindriya (eyes) - by continuing to watch screens of mobiles, televisions and laptops or computer without blinking eyelids or seeing small fonts or seeing a very bright light or objects for long periods.⁽⁴⁾ It leads to the aggravation of the vata-pitta prashan tridosha vitiation in chakshurendriya leading to shushkakshipaka, a disorder of eye leading to "*Daruna Rooksha Vartma Yat Kunitam*" (*hardness and roughness of the eyelid*), *Avil Darshana* (*patient cannot see objects clearly*), *Sudarunam Yat pratibhodanam* (*difficulty in opening and closing eyelids*).

Charak Samhita states as a result of pranaparadh, childrens involves in ashubh karma leading to Hina, Ati, Mithya yoga of Gyanendriya and Karmaendriya leading to physical and mental ailments which is due to increased screentime in childrens.⁽⁵⁾ Samprapti focuses on the point that due to Nidansevana doshavruddhi and doshadushti occurs leading to aggravation of Vata and Pitta Dosha. Doshas spread in the body via sira and srotas and enters Urdhwagata Sira. Prakupita Doshas then do sthanasamshraya in various part of netra.

With the advent of new technology in the new millennium digital screens in the form of televisions, smartphones, computers and other portable devices their excessive use causes individuals to become addicted and isolated.⁽⁶⁾

Excessive screen time in early childhood leads to negative outcomes such as obesity, poor sleeping habits, increased sedentary behavior, anxiety, attention deficit hyperactivity disorder, social anxiety disorders, obsessive compulsive disorders. Children's body functions are not fully developed and these may adversely affect them if they are too much exposed to digital screens.⁽⁷⁾

COMPLICATIONS OF OVER SCREEN TIME

Electronic Screen Syndrome:

ESS is essentially a disorder of dysregulation. Dysregulation can be defined as an inability to modulate one's mood, attention, or arousal level in a manner appropriate to one's environment. E. Over the past couple of decades, there has been a marked increase in diagnoses of childhood psychiatric disorders including bipolar

disorder, attention deficit hyperactivity disorder (ADHD), tics, and autism, as well as increases in obesity and other stress – linked medical conditions that were previously rare in children, such as metabolic syndrome.

Musculoskeletal Disorders - Excessive smartphone use may produce considerable stress on the cervical spine, thus changing the cervical curve and resulting in neck- shoulder pain (Park et al., 2015). When using a smartphone, people tend to flex their neck downward to stare at the lowered object and maintain the head in a forward position. (8)

Mental Health - Poor sleep quality has been associated with problems in memory performance, as well as poor concentration, which logically ascertains poor academic performance. (9)

Child Behaviour – Primary effect is an increase in sedentary activity and also affect interpersonal skills.

Childhood Development – Rapid development occurs under age of 3. Young children learn by looking up there adults in surrounding and excessive screen time inhibits child ability to engage in day to day activities and reduce their observation capacity.

Lower self-esteem - spending too much time in the virtual world of screens can also have a negative impact on how they perceive themselves.

Cognitive Impact of screen addiction - Use of Electronic medias specifically internet affects adolescents brain structures as well as substantial changes in memory contemplation and consolidation functions.

Impact on academic achievement and functioning - It is linked to disruption and decrease in academic performance. Childrens spend precious time in watching movies and cartoons, playing games inturn affecting academic performance.

Affects Social Relationships - Individuals who constantly use smartphones may experience a decrease in the amount of time they have for other social relations, especially activities that involve face-to-face interactions. (10)

Eye Symptoms – Increased risk of Dry Eye, Irritated Eyes, Retinal damage, Nearsightedness, Blurred vision. Double vision, ocular discomfort, eye strain, headache. (Moon, Lee, and Moon, 2014) (11)

Electromagnetic Radiation – Smartphone, TVs, Microwaves produces non ionizing radiation, but at a low frequency level. Radiations damage brain tissues as they are more absorbent, their skulls are thinner, and their relative size is smaller.

TREATMENT

1. Nidan – parivarjan – (Change the habit and avoid the use of social media apparatus)

2. Indulging in outdoor and indoor games like kho-kho, kabbadi, chess, ludo carrom board etc.

3. Yoga – Suryanamaskar

4. Breathing and Pranayam

5. Ayurveda herbs –

Ashwagandha – Reduces stress and anxiety disorders ,boosts memory promotes anti oxidant activity.

Brahmi - Reduces stress and anxiety, boost cognitive ability, increases memory and concentration

Shankhpusphi –Beneficial in disorders like anxiety,sorrow depression insomnia.

6.Diet Regimen (Ahara)- Fruits – Amalaki,Jambu,Haritaki,Giloy

Vegetables – Patol,Shigru,Granjanak,Vartaka,Trapusha.

Liquid Intake (Anupana)-Madhu(Honey),takra(buttermilk),Tila Tail(sesame oil)

7.Limit Screen Time - Switch off the television, computer, video game, etc.,

8.Turmeric Milk- Milk contains tryptophan, an amino acid that converts into serotonin,it has antioxidant, anti-viral, anti-bacterial, anti-fungal, anti-carcinogenic, mutagenic and anti-inflammatory properties.

9.Psychotherapy (Satvavajaya chikitsa): Time Parent's role: Parents should set a good example for children by choosing a healthy diet and doing ample exercises.

10.Emotional support to the child by parents.

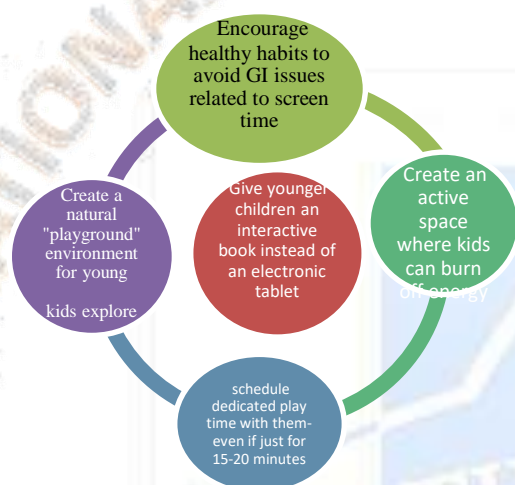


Fig no – 1 Management of screen time in children’s

METHOD OF STUDY

This study is a type of observational study (Cross sectional study) in which 500 children were enrolled for survey. As this type of study had not been done in past in our Institute or nearby. So, we planned to get the real data for screen time effect of children. in Varanasi .

The Present was conducted in the OPD of Kaumarbhritya Faculty of Ayurveda, SSH -B.H.U.

Inclusion Criteria:

1. Children of age group of 8-16years.
2. Children of both sexes.
3. Child with no systemic illness.

Exclusion Criteria:

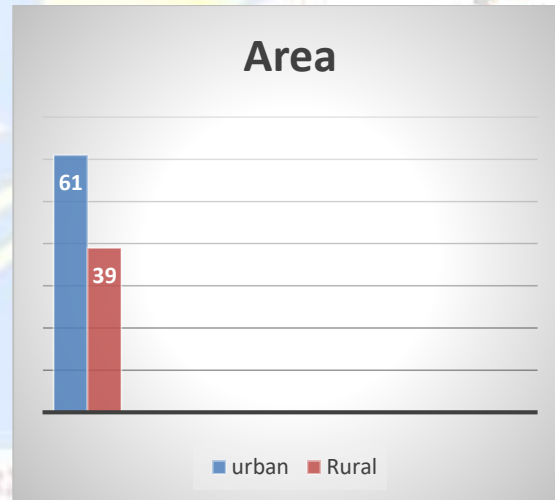
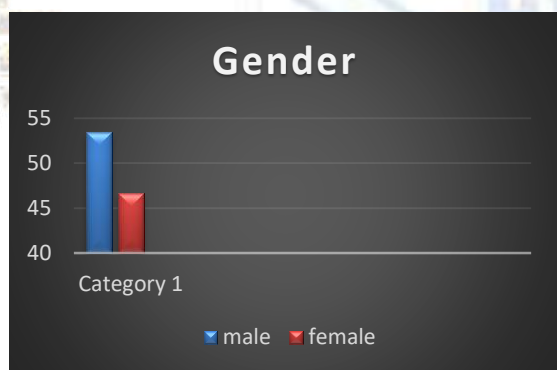
1. Child having serious systemic illness
2. Child with any acute illness
3. Child with locomotor difficulties like cp

RESULTS

All the data were collected in tabulated form and shown in graphic representation. The results were analysed by using Chi Square test due to qualitative variables. Young's internet addiction test is one of the most reliable and valid instruments used for the assessment of internet addiction. So it was used for the assessment of screen time.

500 subjects were registered and randomly selected. In the present study, observed data shows that maximum subjects ie, 54% belonged to the age group 12-14 yrs, followed by 29.6% were belonging to 15-16 yrs, 15% were belonging to 8-11 yrs respectively. 53.4% were male followed by 46.6% female. The data shows that severity of Internet addiction more in male subjects. 61% resided in urban area and 39% resided in rural area respectively. The observed data shows that severity of Internet addiction more in Urban areas. The survey data shows that in 6% subjects their grade or school work always suffer because of excessive use of internet, 7% subjects their grade or school work often suffer because of excessive use of internet, 7.6% subjects their grade or school work suffer frequently because of excessive use of internet.

The data indicates that when asked about their online activities, 8% of subjects always become defensive or secretive, 6.8% frequently do so. It shows that 8.6% subjects always snap, yell, or act irritated when someone bothers them while they are online, 9.4% subjects often snap, yell, or act irritated when someone bothers them while they are online, 18.0% subjects frequently snap, yell, or act irritated when someone bothers them while they are online. According to the collected data, 7.8% of subjects always lose sleep as a result of using the internet, 10.6% of subjects sometimes do so, and 17.4% of subjects frequently do so. The data gathered shows 13% of the individuals constantly experience depression. When they are offline, they feel apprehensive, tense, and irritated, but once they are online, those feelings subside.



DISCUSSION AND CONCLUSION

On evaluation of the knowledge of the literature and experience of the work it may be concluded, that: Because of a child's or adolescent's inability to self-regulate, he or she is at risk of spending prolonged time using these devices. Internet is a double edge sword & should be cautiously used by children. Sleep, school performance, household activities all have been disturbed due to internet addiction. Screen time should be limited in children as per guidelines. Adults should become role model for children by limiting their screen time especially in front of them. Children should be engaged in outdoor, indoor games & group play with other children.

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