

Repercussions of Digital Education on Children During Covid-19 Pandemic

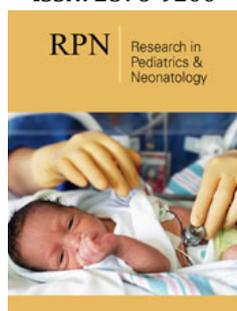
Nidhi Awasthi¹, Neetu Singh S¹, Harish Kumar S^{2*} and Vyas PP³

¹PG Department of Kaumarbhritya, University College of Ayurveda, India

²Assistant Professor, Dr. SRRajasthan Ayurved University, Jodhpur, Rajasthan, India

³Associate Professor and Head, Dr. SRRajasthan Ayurved University, Jodhpur, Rajasthan, India

ISSN: 2576-9200



***Corresponding author:** Harish Kumar S, Assistant Professor, Dr. SRRajasthan Ayurved University, Jodhpur, Rajasthan, India

Submission: 📅 October 10, 2020

Published: 📅 December 22, 2020

Volume 5 - Issue 2

How to cite this article: Nidhi Awasthi, Neetu Singh S, Harish Kumar S, Vyas PP. Repercussions of Digital Education on Children During Covid-19 Pandemic. Research in Pediatrics & Neonatology. 5(2). RPN. 000608. 2020. DOI: [10.31031/RPN.2020.05.000608](https://doi.org/10.31031/RPN.2020.05.000608)

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Abstract

Due to covid-19 pandemic, social distancing is a part of our lives now digital education or online learning is a part of it. Digital education is helping educational institutions and children to beat the Covid-19 lockdown by pushing them ahead with the academic calendar. Learning from home is the only choice right now and this also has its own adverse effects on the physical, mental, and social wellbeing of children. According to UNICEF 'lives of children are at risk due to pragmatically shifted to online during this lockdown period which arises due to COVID-19 pandemic[1]. It is need of hour that we take steps to minimize the ramification and do our best for the benefit of children.

Keywords: Covid-19; Online Education; Digital Education; Child Health; Ayurveda

Introduction

Year 2020 is one of the toughest years for the entire world. The covid-19 pandemic has brought a lot of changes in our lives whether it is about socializing, health, relationships or education. Lots of people lost their lives and many more are struggling for their existence. Till today social distancing is one of the best ways of prevention from covid-19. Offices are closed; most of the employees are working from their homes. Schools are not exception as well, the government has ordered for the digital education for children. Like everything this also came with some cons. Because it is the only choice in these circumstances 'lives of millions of children have temporarily shrunk to just their homes and their screens, we must help to show them a way out from this new reality, this is a statement of UNICEF Executive Director Henrietta Fore [1]. It is a new pattern of learning for students as well as for teachers too. Parents are also struggling with the online homework of their kids. Approximately More than 1.5 billion children and young people have been affected by the closure of schools worldwide [1]. The lockdown leads to a huge rise of screen timing of children which is the cause of many health hazards. We need to list these down and try to find out the solutions before it's too late.

Material & Methods

In this review manuscript data is compiled from various textbooks of ancient Indian medicine like sushrut samhita, charak samhita etc which are authenticated and supported by various research articles published in international journals and some research articles from national/ international journals, newspapers, and the site of UNISEF, ncbi etc searched through pubmed, open med, medlar, inmed and google scholar.

Common problems faced by students about digital learning are [2-7].

Technical issues

Lots of technical issues are existing with this online education. First & foremost issue about online education is unawareness of technology in parents & children. Other issues are poor network connection, poor understanding although some of the children and even parents don't even have access to computers.

Adaptability issues

An online class is entirely different from the traditional classroom so many of the kids are not very comfortable with this idea. In traditional classroom teacher are equally concerns about each & every child and treat him accordingly while it is impossible to understand child psychology in online teaching methodology by the teachers. Thus it is the tough time for both teachers and students to make proper understanding. Once this understanding develops among students and teachers then its outcome will be more amazing. So it is the time to accept it as a challenge and accept it with an open mind and core of the heart for the better future of children and to prevent them from Covid-19 too.

Computer literacy

Most of the children are techno-friendly in today's times but still many of them find difficulties in many ways like attending online classes, question answers session and giving online tests etc. Such children need parental assistance in performing all these things and sometimes it's more difficult when both of the parents are working.

Time Management

There is a kind of flood of webinars or online education activities nowadays. Sometimes it's difficult to manage time to attend all these or sometimes there is a time clash between two classes, so it is necessary to manage time in today's perceptive in online teaching.

Long hours of digital learning have different impacts on the health of children. Few of them are listed below-

Physical impacts:

A. Strain to eyes: Excessive screen time can strains your eyes, which make them feeling dry; it can also lead to retina damage and blurred vision. Computer Vision Syndrome is already very common problem these days. Due to these circumstances it seems that very soon it would be common in children too.

B. Muscular pain: Due to long sitting hours without much movement can lead to muscular pain.

C. Back pain: Most of the children don't pay attention on their posture while attending the online classes, in traditional classrooms its different, they have to sit straight in the class and teacher is always there to correct their posture. Faulty posture may lead to back pain.

D. Shoulder pain: Continue holding the mobile can cause shoulder pain or even numbness of hands.

E. Sleep deprivation: It is proven by many researches that the blue light emitted from digital screens like mobiles, computers etc., interferes with the production of the sleep hormone melatonin in our body. Sleep deprivation causes deficits in the prefrontal cortex, which normally keeps our amygdale, the emotional and impulse region of the brain, in check. Without sleep, our cognitive

and emotional abilities become markedly disrupted [3].

F. Risk of obesity: Long sitting hours without much physical activity make children lazy and lead to obesity.

G. Delayed learning in young children: Alteration of the brain's structure due to excessive screen time can impact learning abilities of young children. It's always better for them to learn by physical exploring.

More than 1 hours of daily screen time can cause various adverse effects on children it was found that such children were associated with lower psychological well-being, including less curiosity, lower self-control, more distractibility, more difficulty in making friends, less emotional stability, inability to finish tasks and such children are more difficult to care for [4].

H. Mental impact

1. Researches have shown that increased screen time is connected with sedentary behavior in children [5].
2. Increased screen time may also increase the risk for depression, anxiety, suicide, and inattention among children and adolescents [6].

I. Social impact

1. Cases of sexual exploitation of children have been raised during this period
2. Isolation tendency is been increased
3. More dependency on virtual friends instead of real once.
4. Indulging in other inappropriate online activities

Need of the hour- solution oriented approach

It is an uninvited situation we all are dealing with, so we need to find the solution keeping that in mind that this is the new lifestyle from now on at least for this year

Here are some solutions which can recoup the probable adverse effect and lead the children towards to a healthy life.

1. Indulge the child to maximum possible physical activities.
2. Make surya-namaskar a part of their daily routine [7]. It has multiple benefits for their physical as well as mental wellbeing.
3. Parents should use antiglare screens to prevent computer vision syndrome or dry eyes.
4. Posture should be correct
5. Exercises-stretching and some exercises of neck shoulder and back can prevent the pain.
6. Lighting-try to sit in natural day light to compensate the harmful effects.
7. Try to have the computer screen approximately 20 to 40 degrees below the eye level. This causes partial closure of the eyes by the lids hence decreasing the evaporative surface [8].

8. 20-20-20 rule-after every 20 minutes of screen time, try to look away at something that is 20 feet away for a total of 20 seconds [9].

9. Blink more

Maintenance and promotion of healthy eyes through Ayurveda

- 1. Head message:** Daily application of medicated oil act as netraprasadan and prevent the eyes from many disorders [10].
- 2. Nasya:** Application of Gaughrita in nasal cavity can helps to maintain the health of eyes and add many more benefits to health [11].
- 3. Padabhyanga:** Regular massage of feet with oil is indicated as drishtiprasadan [12].
- 4. Padaprakshalan:** Washing and cleaning of foot also acts as drishtiprasadan [13].
- Neti and tratak are types of yoga which are very helpful in maintaining the health of eyes [14].

Discussion

Health and education of children go hand in hand. Both have their own importance and can't be neglected at all. In current circumstances when the whole world is struggling from the covid-19 disease and no one have any idea when will everything become normal, education from home is best way to protect children from getting infected and online classes seems the best way to do that. It is clear that we have this option only and like everything this comes with some negative effects too. It's our responsibility to be aware of such adverse effects, make the children aware too and try to lower it down as much as possible with some dietary changes, including exercise and yoga in daily routine of children, and adopting eye care measures mentioned in Ayurveda.

Conclusion

Extreme time needs extreme measures. This is an extreme time for all of us and to beat this situation we have to be patient and calm. There are many studies going on to access the impact of digital education on children and the picture doesn't seem very good. Various Data shows that problems like anxiousness, restlessness, mood swings have been increased in school going children [15]. Problems like academic dysfunction, eye strain etc. has also increased during this time. If we talk about gender some data shows that female children are more affected than male [15]. Health of the children should be our priority and social distancing is the best way for that right now so we need to understand

that digital learning is not a choice but the only option we have nowadays because education is extremely important too. To make harmony between health and education, we need to be a bit more careful, keep an eye on children what they are watching, educate them how to take care of the posture and eyes especially just like we teach them to wash hands or to wear mask. Limit the screen time other then study. Be a role model for children and adopt these measures for yourself too.

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