



## SCREEN ADDICTION AMONG ADOLESCENTS DURING COVID-19 PANDEMIC: AN OVERVIEW

Mrs. Grace S. Mane | PhD Scholar ShriJIT University, Jhunjhunu Rajasthan.

### ABSTRACT

Covid 19 pandemic has forced people to change their life styles. It confined the people in their houses. Technology is playing a pivotal role in bringing lives to new normal. This new normal is an attempt to prevent academic losses of school and college students through online teaching and financial losses of people through work from home. Naturally the screen time of people including higher secondary school children increased drastically. The screen time of schooling, assignment and projects to be done at home, their submission added with the entertainment time spent watching TV, internet, and social media time with facebook, Instagram, whatsapp, etc. Children typically obtain their daily physical activity through active travel to school; physical education and recess; organised sports, games, and dance; active play; and spending time in playgrounds and parks. COVID-19 have brought all these activities to halt. The only option for school children was to fulfil their academic and physical activity needs through screen engagement. The foregoing article overviews the screen addiction among the adolescents resulting from technology ruled new normal life.

**KEYWORDS :** Screen addiction, adolescents, COVID-19 pandemic

### INTRODUCTION

The 2019 novel coronavirus disease (COVID-19) is an emerging disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), first noted in Wuhan, Hubei province of China, in December, 2019. The decreased transmission of SARS-CoV-2 is found to be associated with the conduction of non-pharmaceutical interventions (NPIs) including school closure. Evidence suggested that student's connection with classmates and opportunities for physical activity might greatly reduce by the enforced isolation and school closure. Furthermore, children's sedentary activities and screen time might expand owing to the social distancing. Moreover, because the online courses were delivered through TV broadcasts or internet, school-aged children had to learn online using digital devices, which might exacerbate the overuse of media applications among children.<sup>1</sup>

Global movement behaviour guidelines recommend that preschool children (aged 3–4 years) accumulate at least 180 min physical activity, engage in no more than 1 h sedentary screen time, and have 10–13 h good-quality sleep per day. For school-age children and adolescents (5–17 years), the recommendations are to participate in at least 60 min moderate-intensity to vigorous-intensity physical activity, engage in no more than 2 h sedentary recreational screen time, and have 9–11 h good-quality sleep each day. As a result of the coronavirus disease 2019 pandemic, opportunities for children to meet the movement behaviour guidelines have been affected by school closures and physical distancing measures implemented by many governments.<sup>2</sup>

On 11 March 2020, the World Health Organization (WHO) declared COVID-19 to be a global pandemic. In response, governments worldwide have implemented various measures to contain and mitigate the spread of the pandemic, including strict travel bans, quarantine policies, social distancing measures and even city- or territory-wide lockdowns. These measures have particularly affected school-age children and students in general.<sup>3,4</sup>

A study reported potential increase in myopia incidence, significant decrease in outdoor time and increase in screen time among schoolchildren in Hong Kong during the COVID-19 pandemic.<sup>4</sup>

The COVID-19 pandemic has deteriorated key determinants of health and caused major upheavals around the world. Children, although less directly affected by the virus, are paying a heavy price through the indirect effects of the crisis, including poor diet, mental health impact, social isolation,

addiction to screens and lack of schooling and health care, particularly among vulnerable groups.<sup>5,6</sup>

Socio-cultural factors are the larger scale forces within societies and culture that affects the thoughts, behaviors and feelings of individual members of those societies and cultures. Example of socio-cultural factors include language, law, aesthetics (appearance), religion, values, attitudes, social organizations, family, community a person's role or status among others.<sup>7</sup>

A great number of studies have aimed at determining whether computer-mediated education in the form of e-learning, blended learning or hybrid learning is better than traditional face-to-face teaching in relation to, for instance, learning outcome and student satisfaction.<sup>8</sup>

As of early March 2020, roughly one-half of in-person L&D programs (through the end of June) have been postponed or cancelled in North America; in parts of Asia and Europe, the figure is closer to 100%. Businesses, with a vision of safeguarding their workforce's health and safety during COVID-19, have transitioned to a remote work environment.<sup>9</sup>

Millions of employees now work together virtually, while being physically distant, with a supercomputer at their fingertips, telecom service support in their homes, and a host of digital tools at their disposal to communicate, learn, work, and share.<sup>8</sup>

### Changes In Teaching – Learning During COVID-19 Pandemic

Several studies have compared face to face teaching to online learning and/or blended learning in order to try to define which of the formats provides the highest learning outcome and creates the most satisfied students or has the highest rate of course completion.<sup>8</sup>

Recently, the education system has faced an unprecedented health crisis that has shaken up its foundation. Given today's uncertainties, it is vital to gain a nuanced understanding of students' online learning experience in times of the COVID-19 pandemic. Although many studies have investigated this area, limited information is available regarding the challenges and the specific strategies that students employ to overcome them.<sup>9</sup>

Academics or lecturers need to adopt the blended or hybrid mode in their teaching and learning.<sup>10</sup>

Both modes the physical and the online learning, can be

improved by reducing the weaknesses and maintaining the strengths. Though different, the two modes may play complementary roles and the combination of the two modes, known as "blended learning" become very relevant. Thus, teachers are enabled to design, develop and deliver effective mixed programmes.<sup>10,11</sup>

The Covid-19 has resulted in prolonged schools shutting all across the world. Globally, billions of children are affected and are out of the classroom. As a result, education has changed dramatically, with the specific rise of e-learning, whereby teaching is undertaken remotely and on digital platforms. Digital technology with easy access to the internet helped bring remote learning opportunities, online classrooms, and access to high-quality education even in rural and semi-urban locations. Online learning provides flexible learning schedules, students are more connected to the teacher in an online learning environment, parent-teacher collaboration becomes positive and transparent, and online systems permit deep analytical summaries of a students' progress.<sup>11</sup>

### Online Learning Advantages

One of the easiest effects of online education on children's recovery is to improve learning outcomes. Online learning provides students with access to a time and place for education. With online courses that can take place at home or in a place of their choice, there is less chance for students to miss classes.<sup>11</sup>

On the contrary, online courses provide access to students who may never have the opportunity or the inclination to attend lectures in person. Advancements in artificial intelligence offer hope for the future: Online courses address students' needs, meet them where they are learning, and better integrate them into higher education than they have ever been able to do in personal courses. Online courses offer the promise of accessing students' lives at all times, redefining educational opportunities, or at least serving the traditional classroom better. With online education, students have the opportunity to learn from teachers from any time zone in the world and at any time of day.<sup>12</sup>

Online learning is growing at the same rate as before COVID-19, with a third of postsecondary students attending at least one online class and 30% of graduate students studying online. Another benefit of online education is that it allows students to participate in classes at places of their choice. It also allows schools to reach an extensive network of students without being constrained by geographical boundaries.<sup>12</sup>

Asynchronous online education gives students control over their learning experience, allows flexibility in the curriculum for non-traditional students, and gives students greater responsibility. Through the use of online learning, students can distance themselves from each other without being exposed to coronavirus and online learning has many health benefits for students and their families.<sup>13</sup>

The main benefit of asynchronous, online learning is that it allows students to fully participate in high-quality learning situations, where distance learning makes it difficult or impossible to learn on the ground.<sup>13</sup>

### Implications Of Transition To Online Learning

The transition to online learning has implications not only for teachers, who need to change their courses but also for students, who need to adapt to the new learning environment. One of the most important consequences of the transition to online learning is its impact on students' health and sleeping habits.

### Impact of Online Learning on Children

For online learning students must be organized, self-

motivated, and have a high level of time management to participate in an online program. Online learning methods can be an effective alternative educational medium for mature and self-disciplined pupils but are unsuitable for learning environments that depend on the learner.<sup>14</sup>

It is essential for teachers to keep their online lessons clear, engaging, and interactive so that students can concentrate on the lessons. Students' commitment to time is often misinterpreted as meaning that online courses require less time and effort than traditional courses. Online students can participate in internal class discussions and complete assignments, essays, and projects.<sup>14</sup>

Effects of not being able to interact with other students and teachers can result in serious negative effects. Online learning can lead to students not developing the necessary communicative skills. In addition, students must have high-speed internet access at home, which can lead to complications if it is not available.<sup>12</sup>

The challenges of online learning can impact children to a great extent; loss of motivation, self-discipline, and the need to study are some of the biggest problems children face. Impacts include the lack of efficiency of technology, the difficulty for pupils to understand the concepts taught, and online learning causes social isolation and results in pupils not developing the necessary communication skills. Factors that determine how well a pupil's education performs in online learning include individual learning styles, learning environments, and the level of parental involvement.<sup>15</sup>

But adapting to this new normal was not easy. Teams and individuals were wading through uncharted waters, using technology they never had to before and doing things in a way never done before. Both unit-level upskilling and organization-wide transformational training, as well as technical and non-technical training on remote-working skills, remote-management skills, and leadership skills became mandatory digital transformation strategy today.<sup>15</sup>

### Pivoting From Traditional Learning

The impact of COVID-19 has been, by and large, affecting every individual, team, function, business, industry, and country. It is especially severe for organizations that were highly dependent on face-to-face training. Their lack of preparedness for a modality different than a classroom setup has left them hustling to find a quick-fix for the challenge at hand and also for future-proofing their Learning and Development interventions.<sup>16</sup>

Their core necessity was rapid conversion of physical learning to eLearning, to sourcing ready-to-use courseware for delivery via an online format, to online lectures or Virtual Instructor-Led Training (VLIT). However, migrating existing classroom training programs to an all-digital avatar calls for effort, beyond the mere application of existing technology solutions, in order to offer virtual learning. One way or the other, there's a large-scale shift to online from the face-to-face format, a fact supported by a recent survey by The eLearning Guild.<sup>15</sup>

### Barriers To Digital Learning

From elementary and middle, to high school and college, every student of all age groups was forced to take online classes because of the COVID-19 pandemic. The giant push towards online learning was necessary for public safety, though it may be causing problems in the education system at large.<sup>16</sup>

While this has paved opportunities for the growth of eLearning— both content and eLearning platforms, budgetary constraints due to economic instability, lack of infrastructure and, most importantly, unavailability of

eLearning content and trainers with remote training expertise were great challenges. On the learner front, the inability to strike a time management, balanced life style, unfamiliarity with Learning Management Systems, and overall stress/anxiety due to the pandemic were barriers to bringing about change in digital learning.<sup>17</sup>

In Jan. 2022, 61 students at The University of Alabama took an anonymous poll which asked about their online learning experience. Every student has taken an online course at some point in the last two years. The poll showed a variety of short-term repercussions.<sup>17</sup>

Online learning made it harder to focus in school. Students fell behind and their grades were poor. They had bad study habits, and had a hard time socializing with people. The social aspect of learning in a group setting was eliminated, as was the community that came with it.<sup>17</sup>

The poll was anonymous and consisted of five questions with an opportunity at the end to leave a comment about any other feelings the student may have about attending college partially or entirely online. The poll received mixed reviews, with some students heavily preferring classes to be taught in-person, while others not really caring either way.<sup>17</sup>

Students reported of being locked in their dormitories and gaining weight. They procrastinated all the time and didn't really care about their study. Some others were happy for saving the travel time for studying. However, most of the students (68.9%) would rather physically attend their classes.<sup>17</sup> Students also reported that some subjects like Chemistry should never be taught online. Some students felt that their poor grades are because they studied online.<sup>17</sup>

The poll reflected a larger trend of how online learning is negatively affecting the education system and the individuals within it. Online learning may be decreasing the value of a collegiate education.<sup>17</sup>

#### **Nature And Extent Of Screen Addiction Among Adolescents**

As the COVID-19 pandemic continues to squeeze tight, screens have either completely swallowed our lives, engulfed our attention and damaged our already fragile mental health, or they have been the one thing keeping us sane and allowing us to maintain social contact.<sup>18</sup>

For almost everyone, screen time from 2020 is not just up, it's exponential. From scrolling endlessly for coronavirus news to watching more Netflix than any human should to take our minds off it, to the fact that Zoom has subsumed our working lives, screens swamp our waking hours.<sup>18</sup>

The average adult in the US was spending about 3.5 hours a day using the internet on their phones in 2019, according to a study by analytics company Zenith. During COVID-19 pandemic the screen time on an average is eight hours a day, or more.<sup>18</sup>

The Zoom users went from 10 million in December 2019 to 300 million a day in 2020.

The World Health Organization is issuing warnings about the health risks of excessive screen time, that include negative impacts on relationships and an inability to control emotional outbursts. Screens are taking priority in a person's life over the basic functions, such as eating, sleeping, personal hygiene and exercise.<sup>11</sup>

Author and behaviour specialist Mark Carter says there's no doubt that our mental health is suffering from all this screen gorging.<sup>18</sup>

Human beings need human connection and video

conferencing does not substitute actually meeting with somebody. There is hollowness in the relationships.<sup>7</sup>

Video calls increase the longing for physically be with people. It makes one notice more what is being missed out. Work life is also very taxing with meetings scheduled back to back and no opportunities to meet people. It is exhausting, because it does not allow for those normal breaks, and that is not good for mental health.<sup>18</sup>

As humans, touch is one of the really important senses for us; it's a vital part of communication. But the problem of not being able to read the room, not being able to pick up on people's body language is causing miscommunication many a times.<sup>17</sup>

Screen time is increasing the biases people have that are constantly being reinforced by all the noise on social media, which is not quality journalism.<sup>12</sup>

As you mix with different people, you discuss topics outside of work and you might at least hear different points of view. At the moment, we're not necessarily getting that balanced perspective to tether our own ideas to.<sup>10</sup>

People admit their screen usage has quadrupled during the many months of lockdown. But many others agree that they would be cut off and totally isolated if it weren't for screens and devices.<sup>10</sup>

People need to treat screen time the way they treat calories. Some of it nourishes us and some is junk, but everyone likes a bit of both.<sup>13</sup>

People need to be on Zoom at the moment, and that's a very different situation to sitting on social media, getting depressed and blaming life is not as good as everyone else's.<sup>18</sup>

Depression would be a lot worse without technology. People prefer to communicate online when it's about something like that – it's less intimidating.<sup>18</sup>

When it comes to monitoring our own screen time, adults are capable of. Young child uses a device, until the battery goes flat or they pass out, while fully grown humans are "better at self-regulation behaviours".<sup>19</sup>

The devices are not passive, like radio or television, they're designed to lure our attention. They are just like a slot machine, to create an addictive behaviour.<sup>12</sup>

One can never get to the bottom of these sites, one can't 'finish' Twitter. It's all designed to keep eyeballs on screens for as long as possible.<sup>12</sup>

Schools may be gradually opening up, but a year and a half of being cooped up at home has already left its impact on many students. Excessive Internet/gaming/mobile addiction, a worrying trend even in pre-Covid days, has reached new heights during the pandemic. Many children who went online for classes and social interaction turned into compulsive addicts.<sup>19</sup>

News reported an adolescent with severe Internet addiction got so agitated when his parents suggested counselling that he got physically violent with his father. A four-year-old at an online school, refused to hold the pencil to write alphabets. Children are more comfortable to tap out letters on-screen. Some children start with the intention of interacting online with their peers; in some months they become violent and abusive if their gadgets are taken away.<sup>19</sup>

Many university undergraduates in India filed cases against

universities for not conducting examinations online. This is shocking and shaking the entire education system. The negative impacts of online teaching learning are not limited to screen addiction and its consequences. The severe mental, physical, spiritual and social health related consequences of lockdown are yet to come.

## CONCLUSION

The real impact of the COVID-19 pandemic on children extends well beyond that of a viral infection. This crisis has public health implications that could have life-long consequences on children. Last two years were transitional era of technological literacy and competency. The COVID-19 pandemic had the greatest impact on the quality of the learning experience and students' mental health. In terms of strategies employed by students, the most frequently used were resource management and utilization, help-seeking, technical aptitude enhancement, time management, and learning environment control. Parents, educationists need to use it to educate kids about the positive effects of social media and plan for prevention of screen addiction.

## REFERENCES

1. Yang-fengGuo, Min-qi Liao, Wei-li Cai1, Xiao-xuanYu, Shu-na Li, Xing-yao Ke, Si-xianTan, Ze-yan Luo, Yun-feng Cui, QianWang, Xu-ping Gao, Jun Liu, Yan-hua Liu, Sui Zhu & Fang-fang Zeng. Physical activity, screen exposure and sleep among students during the pandemic of COVID-19. *www.nature.com/scientific reports*, (2021) 11:8529, pp
2. Hongyan Guan, Anthony D Okely, Nicolas Aguilar-Farias, Borja del Pozo Cruz, Catherine E Draper, Asmaa El Hamdouchi, Alex A Florindo, Alejandra Jauregui, Peter T Kitzmarzyk, Anna Kontsevaya, Marie Lóf, Wonsoon Park, John J Reilly, Deepika Sharma, Mark S Tremblay, Sanne L C Veldman. Promoting healthy movement behaviours among children during the COVID-19 pandemic *www.thelancet.com/child-adolescent* Vol 4 June 2020, pp 416-417
3. Chee Wai Wong, Andrew Tsai, Jost B. Jonas, Kyoko Ohno-Matsui, James Chen, Marcus Ang, and Daniel Shu Wei Ting. Digital Screen Time During the COVID-19 Pandemic: Risk for a Further Myopia Boom? *Am J Ophthalmol*. 2021 Mar; 223: 333–337. Published online 2020 Jul 30. doi: 10.1016/j.ajo.2020.07.034
4. Xiujuan Zhang, Stephanie S L Cheung, Hei-Nga Chan, Yuzhou Zhang, Yu Meng Wang, Benjamin H Yip, Ka Wai Kam, Marco Yu, Ching-Yu Cheng, Alvin L Young, Mike Y W Kwan, Patrick Ip, Kelvin Kam-Lung Chong, Clement C Tham, Li Jia Chen, Chi-Pui Pang, Jason C S Yam. Myopia incidence and lifestyle changes among school children during the COVID-19 pandemic: a population-based prospective study. *Br J Ophthalmol*. 2021 Aug 2; *bjophthalmol-2021-319307*. doi: 10.1136/bjophthalmol-2021-319307.
5. Matt Richtel. Concerns grow for children's health as screen times soar during Covid crisis. *The Guardian*, NYT Parenting.
6. Ji Liu, Baihuiyu Li, Qiaoyi Chen, Jingxia Dang. Student Health Implications of School Closures during the COVID-19 Pandemic: New Evidence on the Association of e-Learning, Outdoor Exercise, and Myopia. *Healthcare (Basel)*. 2021 Apr 23;9(5):500. doi: 10.3390/healthcare9050500.
7. Njok, Pauline Cletus, Sunday David Edinyang. Socio-Cultural Factors Affecting the Teaching and Learning of Social Studies in Nigeria. *Journal of Education and Practice* [www.iiste.org](http://www.iiste.org) ISSN 2222-1735 (Paper) ISSN 2222-288X (Online) Vol.5, No.24, 2014
8. Nortvig, A. M., Petersen, A. K., and Balle, S. H., 2018. A Literature Review of the Factors Influencing ELearning and Blended Learning in Relation to Learning Outcome, Student Satisfaction and Engagement. *The Electronic Journal of e-Learning*, 16(1), pp. 46-55, available online at [www.ejel.org](http://www.ejel.org)
9. Jessie S. Barrot, Ian I. Llenares, Leo S. del Rosario. Students' online learning challenges during the pandemic and how they cope with them: The case of the Philippines. *Education and Information Technologies* <https://doi.org/10.1007/s10639-021-10589-x>
10. <http://www.apa.org/pi/ses/resources/publications/factsheet-references.aspx>
11. Min-Pei Lin. Prevalence of Internet Addiction during the COVID-19 Outbreak and Its Risk Factors among Junior High School Students in Taiwan. *Int. J. Environ. Res. Public Health* 2020, 17, 8547; doi: 10.3390/ijerph17228547
12. Doris U. Bolliger and Oksana Wasilik. Factors influencing faculty satisfaction with online teaching and learning in higher education. *Distance Education* Vol. 30, No. 1, May 2009, 103–116
13. Stack, Steven Dr. (2015) "Learning Outcomes in an online vs traditional course," *International Journal for the Scholarship of Teaching and Learning*: Vol. 9, No. 1, Article 5. Available at: <https://doi.org/10.20429/ijstl.2015.09010>
14. Hart et al. Online Learning, Offline Outcomes: Online Course Taking and High School Student Performance. *AERA Open* January-March 2019, Vol. 5, No. 1, pp. 1–17
15. [www.unoassignmenthelp.com](http://www.unoassignmenthelp.com)
16. John M. Krieg, Steven E. Henson. THE EDUCATIONAL IMPACT OF ONLINE LEARNING: HOW DO UNIVERSITY STUDENTS PERFORM IN SUBSEQUENT COURSES? Available <http://www.onlinelearningsurvey.com/reports/changingcourse.pdf>.
17. Nuts and Bolts: How Will You Meet COVID-19 Challenges?
18. M.-H. Lin et al. / Digital Learning on Learning Motivation and Learning Outcome. *EURASIA Journal of Mathematics Science and Technology Education* ISSN: 1305-8223 (online) 1305-8215 (print) 2017 13(7):3553-356
19. [https://economictimes.indiatimes.com/news/india/covid-brings-about-another-illness-gadget-addiction/articleshow/85917380.cms?utm\\_source=contentofinterest&utm\\_medium=text&utm\\_campaign=cppst](https://economictimes.indiatimes.com/news/india/covid-brings-about-another-illness-gadget-addiction/articleshow/85917380.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst)