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## **COVID-19 and Technology: Impacting Children and Adolescents.**

***Bhavya Arora***

Department of Psychology, Amity University Noida, New Delhi.  
Email : bhavyapsy159@gmail.com

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### **ABSTRACT:**

Covid-19 is the era of a pandemic that came into existence with the advent of the SARS-COV-2 virus, which in turn gave rise to many social, economic, and psychological issues. The review study aims to know technology's impact on children and adolescents. For a plant to grow and blossom the initial stage requires much effort compared to later stages likewise for healthy adulthood, these are the fundamental stages of life wherein intellectual abilities, personality, social skills, cognitive skills, etc are developed. Issues in these stages can haunt adulthood or even more for years if not resolved. During the cold era, people were quarantined and locked down for months. This led to the need to change the patterns of living, this change can be seen in the education sector, employment sector, etc. The concept of working from home spread widely all over the world making it dependent upon technology like smartphones, laptops, tablets, computers, etc. This pandemic of novel coronavirus increased the use of technology compared to before the advent of coronavirus. Many pieces of research and articles were reviewed showing the paradoxical impact of technology. To lead a mentally healthy life, knowing the abilities and inabilities can bring a vast change. Life is precious and lifespan is more precious, utilize it effectively and efficiently.

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**KEYWORDS:** Covid-19, Technology, Children & Adolescents.

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### **INTRODUCTION:**

"The roots of education are bitter, but the fruits are sweet." - Aristotle

According to Eroglu (2021), Covid-19 is a contagious infectious disease that spreads widely, and its roots started growing in Wuhan (China). SARS-2COV-2 virus is the cause of Coronavirus infecting the respiratory tract (Yang et al., 2021). The cases of Coronavirus started reporting in December 2019 and then started spreading all over the world resulting in quarantine, locked downs, social distancing, and many more precautionary measures (Limone & Toto, 2021). The simplest way to prevent and abate transmission is to be wise concerning the disease and the way the virus spreads. Shield yourself from infection by staying a minimum of 1 meter except for others, sporting a properly fitted mask, associating degreed laundry on your hands, or exploiting an alcohol-based rub frequently. The virus will unfold from an infected person's mouth or nose in tiny liquid particles once they cough, sneeze, speak, sing or breathe. These patches vary from larger metabolic process dribbles to lower aerosols. It's vital to apply respiratory etiquette, as an example by coughing into a flexed elbow, and to remain home and self-isolate till you recover if you're feeling unwell. This demanded a drastic change in the livelihood of people of all ages. Primarily it hindered the growth of many sectors, leading to changes in their patterns of providing their services like education. The pattern of offline education shifted to online education. Most folks infected with the virus can experience gentle to moderate respiratory disease and recover while not requiring special treatment. However, some can become seriously ill and wish for medical attention. Older people and people with underlying medical conditions like vas disease, diabetes, and chronic metabolic process disease, might have the possibility to develop serious illnesses. Children who stayed with parents having psychiatric issues are more prone to develop psychopathologies (Maciejewski et al., 2018). Social isolation also brought elevated levels of domestic violence, including childhood maltreatment or neglect as a result of parenthood insecurities and inabilities (Fegert et al., 2020). In the environment of COVID- 19 epidemic, parents had to reorganize their lives to deal with working at home in addition to children's operations. Resulting in unforeseen loads burdening parents under different stressful conditions, and potentially adding the threat of children facing emotional and behavioural problems (Crescentini et al., 2020).

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### **CHILDREN**

According to Jean Piaget, there are 4 stages of cognitive development of a child: the sensorimotor stage (0–2 years) preoperational stage (2–7 years) concrete operational stage (7–11 years), and the final stage formal operational stage (11 years through adulthood). According to Solomon & Grunebaum (1982), the social stages occur as the 1st stage between 9 months and 3 years of age, parallel separation-individuation, and are concerned with evanescent physicalistic playmates. The 2nd stage occurs between 3 and 6 years of age; parallels the secerning and oedipal phases; and consists of peer attachment and social play, particular preferences, sustained play, and 1- way backing and unilateral norms. The 3rd stage occurs between 6 and 12 years of age, parallels the quiescence and preadolescent phases, and enterprises 2- way social accommodation and consensual exchange. The final stage occurs between 12 and 16 years of age, parallels the early adolescent phase, and consists of intimate and mutually participated affective bonds. Children aren't indifferent

to the dramatic impact of the COVID- 19 epidemic. They witnessed fears, misgivings, physical and social insulation, and missed the academy for a prolonged period. Understanding their responses and feelings is essential in duly addressing their requirements. In the course of adverse events, children are frequently forced to stay home for long ages due to enforced insulation and academy check, performing in limited connection with classmates and reduced physical exertion (Jiao et al., 2020).

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## ADOLESCENTS

According to Salmela-Aro (2011), adolescence is the phase of transition from being a child to a grown-up which is roughly considered to be the period between 11 and 19 years of age. The adolescent gets not only physical growth and change, but also emotional, cerebral, social, and internal change, these can be astronomically distributed as three stages – early adolescence (11-13) middle (14-17), and lastly (17 to 19). According to Hazen et al., (2008) adolescence is a substantial and crucial physical change of puberty that impacts the social and emotional functioning of adolescence. Adolescence is the phase of age ranging from 12 to 18 years. It is the transition of a person from childhood to adulthood. In this phase of life, adolescents face challenges with their body image, self-image, personality, intellectual abilities, psychological well-being, etc. The cranium consistency of grown-ups is roughly 2 mm. & the cranium consistency of a 5year old child is roughly 0.5 mm and 1 mm 10 times. The nervous systems of children are more vulnerable to the goods of electromagnetic swells than those of grown-ups (Moon 2020).

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## CHILDREN AND ADOLESCENTS

According to Cohen & Scheeringa (2022) children and adolescents experience high rates of traumas. Compared to children, adolescents' thinking is to a higher degree than that of youngsters. Children are a unit solely able to suppose logically regarding the concrete, the here, and the now. Adolescents move on the far side of these limits and may suppose in terms of what may well be true, instead of simply what they see as true. They're able to influence abstractions, check hypotheses, and see infinite prospects. However, adolescents still typically show egocentric behaviours and attitudes. A mentally healthy childhood can make the child develop coping skills, problem-solving, and handling situations, and can stand out in many areas of life. Mental disorders can be a hindrance in learning skills, handling emotions, etc. This can interfere with their social, school, and private life. Mental health is needed to have a quality of life. To understand children & adolescents we should first understand their needs and wants. Needs are the introductory conditions or musts that are essential for your survival. A mortal being can not survive without Oxygen, water, and food. In addition to these three rudiments, some other requirements are essential to living a healthy and happy life. Needs can be classified into two types: private requirements and physical requirements. The earlier described requirements similar to food, water, and apparel belong to physical requirements. These are the introductory requirements or physiological requirements of a mortal being. Private requirements are the cerebral requirements of an existent. These include a tone- regard of, a sense of security, and love. Wants are solicitations. Wants are the effects that you would like to have. But they aren't essential to your survival. Every person has his own set of solicitations or wants. A big house, fancy food, ingrained clothes; a new auto, a trip to a foreign country, etc. are some of the wants that numerous people have. Wants can change over time. For illustration, when you were a child, you might have wanted to buy a big toy castle. But as you grow older, your tastes and preferences change, so, your solicitations change with them. Although the incapability to fulfil a want may not beget death or physical illness, it may affect internal torture. With the change in time, technology has become the need of a progressive modern society but using the technology only when it's needed and not wanted can bring a drastic change. According to Racine et al., (2021) increased levels of depression and anxiety in children and adolescents due to the Covid-19 pandemic are required to be addressed. The heterogeneity and plurality of biopsychosocial stressors bring a multifactorial approach to the COVID-19 pandemic, which leads to unpredictable consequences on the mental health of children and adolescents (Esterwood & Saeed, 2020).

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## TECHNOLOGY

“People who stop learning are old, whether they are twenty or eighty. Those who study stay young. The excellent element in existence is to hold your thoughts young.” - Henry Ford

According to Montag & Elhai (2020), the use of technology increased during and post-pandemic. Technology is the operation of scientific knowledge for useful ends or applications, whether in business or diurnal life. Technology is of many types like mechanical, medical, education, etc. And the equipment widely used nowadays are smartphones, laptops, tablets, etc for many purposes like gaining knowledge, communication, etc. Computer games focus on visual intelligence such as spatial skills and iconic representation (Subrahmanyam et al., 2001). Cyberbullying victimization, sleep deprivation, exposure to violent content, and time spent on the cell phone were associated with lower self-reported academic performance (Ramirez et al., 2021). The digital storytelling concept was found entertaining, engaging, exciting, communicative, and theatrical in early childhood (Rahiem, 2021). The use of technology was for quantity before and after became for quality giving rise to many new concepts in every field.

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## IMPACT OF TECHNOLOGY

According to Conlin & Sillence (2021), negative impacts are more likely to be related to the time being used with smartphones. Weinstein & Lejoyeux (2015) due to their predisposition for addiction, gaming has increasingly become an integral part of children's lives and can occasionally result in "Internet Gaming disorder". The systems like impulse control and sensorimotor coordination are all thought to be significantly impacted by gaming. Marston &

Kowert (2020), the duration and frequency of gameplay have quickly grown during COVID-19 events. Playing video games during the epidemic had some beneficial effects on lowering sadness and anxiety levels, enhancing mental health, and fending off loneliness. According to current studies, video games have also been proven to stimulate or enhance cognitive performance. The earlier study on videogames in COVID-19 found that the good effects of videogames outweighed the negative effects by a wide margin and that the included negative effects had a negligibly little impact on day-to-day living because they mostly included complaints about time waste (Barr et al., 2022). Children and adolescents have started making peers, relations & friends virtually (Spinelli et al., 2020). Parents and children were found to use technology more in the initial phase of Covid-19 (Drouin et al., 2020). The negative impact of media and technology use was anatomized in children (4–8), preteens (9–12), and teenagers (13–18). It seems that adding screen time use correlates appreciatively with unhealthy eating, lack of physical exercise, more total ill-being as well as attention and physical problems (Rosen et al., 2020). To those who live in a low-income situation or a crowded house, this is indeed harder to manage. Children show more feeding behavior to the internet at home. Also, children who have special conditions, who have had a former COVID-19 opinion, or who were formerly under treatment for any condition are more vulnerable (Fegert et al., 2020). A meta-analysis review showed a negative correlation between the quantum of screen use and language development in young children. Still, if exposed to better quality content with an educational bias, the use of defenses can be salutary for children's language in an age-dependent manner (Madigan et al., 2020). Limone & Toto (2021), the negative and positive impacts of technology were seen in children and adolescents. Positive impacts like (a) Visual attention - keeping track of a lot of things at the same time. (b) New and creative ideas that the internet is providing for education purposes make the attainment of knowledge exciting, and entertaining, a visual impression lasts long. (c) Information is easily accessible and open to all helping anxious and depressed ones by choosing the content of their choice. Negative impacts like (a) technology have impacted their interpersonal skills, and social competence, as it's like their friend confiding themselves in a four-walled room & likes to spend time with it for hours and hours, making them addicted to smartphones and leading to childhood obesity. (b) technology has impacted their sense of identity, and perception of realistic and unrealistic worlds. (c) Having exposure to violating content, cyberbullying, and loss of privacy gives rise to body image issues, lower self-esteem, aggression, and sleep issues.

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## SUGGESTION

According to Oswald et al., (2020) time spent with the screen is called screen time, and the time spent with nature is called green time, green time and screen time should be balanced. Parents should monitor the usage of technology and should incorporate indoor activities. Making the children motivated, productive, and creative. Making a routine is a habit, first, you make the habit then the habit makes you. Trying to incorporate healthy habits can make a change. Going for offline shopping instead of online shopping can bring them out of four-walled rooms. Making them understand the meaning of needs and wants, and purchasing the things that are needed and are not wanted. By seeing online videos using content like dancing, aerobics, exercising, etc. Making them feel it's part of working life only and not social life like for education, creativity, and learning, and not for sharing personal content. Practicing detachment which says having the things but not using them, only using them when it's necessary. For example: - keeping the smartphones but only using them for particular working hours like for education or business purposes turning on the internet for 1 hour in the morning, 1 hour in the afternoon and 1 hour in the evening & then turning off the internet. Replying to the necessary ones by creating boundaries. Without the internet smartphones can be used for calling, calculations, messages, clicking photos, etc. because most apps work with the internet like WhatsApp, Instagram, and Facebook, etc. this gives a little peace from distractions. Downloading the content like poems, and then reciting them along. When the technology is more ingenious, we the creators are the smartest. So, using it only when it's necessary and knowing how to filter the distractions is a skill. Understanding the difference between the need and want of technology. Try to avoid having food, snacks, and meals, with the screen, and incorporate mindful eating. This will help in taking breaks and will reduce unmindful eating excessively. Children don't know the benefits of keeping hard copies, lots of documents and data get corrupted, lost, and misused in soft copies & become difficult to retrieve. Making them understand the benefits of making hard copies, will help with writing skills and making notes. Knowing the difference between private life and professional life is a prerequisite for changing modern society. Using technology to make tasks easier and faster for professional life and not sharing all the happenings of private life on a social level it's our life and not society's life. Social platforms are created for making connections that can benefit the profession and not life. According to Tang et al., (2021) parents' communication with children and adolescents can help in coping with mental health issues arising due to the COVID-19 pandemic. Always remember when there was no technology still there was life to live and prosper. Be Smarter and Wiser in making choices. Choose the right battles.

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