

COVID-19 Lockdown's Impact on Increased Screen Time and Long Term Consequences on Children and Adolescents:

Introduction:

The new millennium marked the beginning of society's growing reliance on technology for convenience, work, and play. Our reliance on technology in our daily lives grows as tasks are shifted to focus on technological advancements to increase the quality of life for many. The question becomes, is quality of life improving for most individuals in the advanced world? Many argue that technology such as smartphones, laptops, and tablets have increased productivity as well as communication; society is the most connected it has ever been in the entirety of man's existence. However, many health experts argue that the long term effects of hand-held device usage is contributing to a decreased attention span and brain development in young children and adolescents. This effect is further exacerbated by the early usage or exposure to social media. Research centered on this issue can be found from journals and other secondary sources from the mid to late 2000s. However, I specifically want to explore and infer ways that the COVID-19 pandemic has contributed to the development of children and adolescents if in a negative way, especially those from an underprivileged circumstance (income, ethnicity, etc.). In my search for research articles from 2020-2022 that discuss screen time in young children, the articles I found most relevant to my topic of interest didn't specifically discuss COVID-19's impact on increased screen time in their most recent issues. Furthermore, most of the articles I am using are science articles, with an emphasis on a hard science approach. I intend to use them to prove that a

knowledge in the hard sciences is essential for research in the social sciences; to show the connection between the two fields and the importance of their relationship in society. There is also literature that discusses the disproportionate rate of anxiety and depression expressed in black children and adolescents when considering other major historical events during the height of the COVID-19 lockdown such as the Black Lives Matter movement and protests.

Methods to Gathering Information on Adolescent Screen Time:

The methods approached in this question involved the reliance on data and notes from primary sources such as sample population statistics, interviews, theory from older medical documents, and other clinical and biopsychological manuscripts. Secondary sources, such as the articles of interest, all include their findings from primary sources and cite them. The article *Digital dementia in the internet generation: excessive screen time during brain development will increase the risk of Alzheimer's disease and related dementias in adulthood*, cites the Centers for De adulthood, they used more general character titles instead of a numerical age demographic, (childhood, adolescence early/late adulthood). When studying preschoolers, parents contributed to the study by providing the amount of screentime in the number of hours to the researchers. In addition to studying the physical aspects of the health of children with varying screen time exposure in hours, the authors of *A Network Perspective on the Relationship between Screen Time, Executive Function, and Fundamental Motor Skills among Preschoolers* took measurements of children's height weight and BMI before and after exercise. The study also relied on the survey aspect which included Parents having to recall approximately how much recreational screen time their children were allowed to have. Overall, a majority of the secondary sources had a similar approach to their main source of data and information; i.e. questionnaires and surveys. Researchers who contributed to *"Everything Seems Unreal": How Adolescents*

Cope with COVID-19 Quarantine Experience used online platforms such as Facebook to gather participants for the search, and later conducted interviews with the participants on zoom, with the duration varying from 13 minutes to up to almost 90 minutes. To analyze the data, researchers independently coded interviews and categorized them by main themes: withdrawal behavior, attention focusing on the particular activities, seeking for social support within family and via the internet with friends, expression of overwhelming emotions, protest against quarantine restrictions, attempts to maintain “active oneself”, search for the personal meaning of the lockdown. The most common theme amongst adolescents interviewed was ‘search for the personal meaning of the lockdown’; as in the desire to develop a positive attitude towards unsolvable problems, relating to psychological resilience (Kaye-Kauderer et al., 2021).

Findings From Sources and Their Consequences:

All of the articles came to similar conclusions regarding the impact of screen time on younger generations. They mention physical changes to the brain, such as the decrease in the volume of the occipital cortex. This is contributing to other effects such as decreased motor function, vulnerability to distractions, inability to properly regulate emotions, an increase in the frequency of depression and anxiety, (Manwell, Ciccarelli, Eikelboom 2022). Ultimately, in the findings from researchers in the “Digital Dementia” article, prolonged screen time usage can have long term consequences such as a susceptibility to Alzheimer's and other dementia related diseases. Other findings from these articles include that younger generations were found to interact less with their friends in person as opposed to older generations, and children from underprivileged backgrounds were more likely to have higher screen time usage than their peers. Not being able to go to school or other public places resulted in a significant decline in children and adolescents interacting less with peers amongst their ages. The literature collectively

concurred that this resulted in feelings of loneliness and isolation amongst a large population of children and adolescents of varying ages. As a result, online chatting became a primary source of communication for adolescents who are able to navigate social media and communication platforms. The authors who contributed to findings in *Staying Online, Staying Connected: Exploring the Effect of Online Chatting on Adolescents' Psychological Well-being during COVID-19 Quarantine*, reported that online chatting became a very common method of socialization for a majority of youth during the height of Lockdown. It was reported that online chatting was connected to an increase in happiness and self-esteem; it also played a major role in the psychological pressure that comes with isolation. However, one of the limitations addressed in this article is the potential for excessive and risky internet use. In that, it can be inferred to have an opposite effect on the mental health of adolescents. Negative online exposure and media will be addressed in my research gap.

Identifying a Research Gap: Discrimination and Demographic Inequality

The Editorial Perspective: Mental Health Needs of Children and Young People of Black Ethnicity acknowledges the argument that the racism experienced by young black children and adolescents should and need to be conceptualized as an Adverse Childhood Experience. It was found that structural racism is associated with physiological and psychological side effects such as high blood pressure, obesity, type 2 diabetes, and other mental health problems such as depression and anxiety. Yet, black children and young adults seeking counseling and other mental health resources are often directed to secondary sources provided at schools and other community programs; whereas, their white counterparts are directed to primary resources that are more equipped to provide effective remedial efforts for their issues. All of the contributing authors in *Conceptualizing Racism: Through a Systemic Trauma Lens: Impacts on Black College*

Students, discuss the presence of a ‘cultural mistrust’ from nonblack professors and students that can create a feeling of otherness among black college students. Black students in this study were shown to have expressed higher rates of anxiety due to online racism and exposure to traumatic imagery. Along with this, black students have to deal with microaggressions in almost every social setting, both online as well as in person. The article *When I think of Home: Black Families Supporting Their Children During the COVID-19 Pandemic*, is important because it not only addresses the research gap I intend on filling, but it is necessary to consider that this is the only known article that discusses this specific issue and was unable to receive funding for their research project. One factor noticed in the study was the decline in the quality of learning for black students returning from online to in person schooling. One of the conclusions made was that the institution of traditional western academia fails to serve the needs of black students and address anti-blackness, rarely if ever recognizing these societal issues.

Conclusion

In conclusion, the findings from all of the literature point to contributions of a significant increase in the current normalized rate of screen time due to the COVID-19 lockdown among young children and adolescents. The consequences of this are long term and have shown to decrease the mental and physical health of children and adolescents drastically. Not only does it affect their motor ability and coordination, it also decreases their ability to focus and regulate emotions – resulting in psychological issues such as anxiety, depression, and other dissociative illnesses. The COVID-19 pandemic increased the reliance on technology within society to communicate, work, and go to school. With this, the adolescents and children likely relied heavily on technology that had access to the internet, as a means of attending class and doing schoolwork, while also putting in an attempt to continue socializing with peers their age through

various online social media platforms. Among the known literature that focused on hard data involving increased screen time faced limitations that too often involved demographic inequality and often didn't include demographics such as race and socioeconomic status. Supported by the literature that focused on the disproportionate levels of discrimination faced by Black children and adolescents, future research will serve to ensure proper representation of Black children and adolescents in the results and findings portion of academic articles that have a similar question.

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