

# The role of physical educators in mitigating health risks among adolescents from increasing screen time

Mansi George<sup>1</sup>, Sandeep Dhull<sup>2</sup>

**Abstract:** This article explores the role of physical educators in mitigating the health risks associated with increasing screen time among adolescents. With the rise of technology, young people are spending more time engaged with digital devices, leading to a range of health issues. Physical educators can play a vital role in promoting healthy habits, physical activity, and social and emotional development to mitigate the negative effects of screen time. The paper provides an overview of the impacts of excessive screen time on physical and mental health. Physical health problems such as obesity, cardiovascular disease, and other health issues, as well as mental health issues such as stress, anxiety, and depression, are associated with excessive screen time. The paper highlights the critical role of physical educators in promoting a balanced lifestyle by incorporating technology-free activities and encouraging physical activity to promote overall health. The paper also discusses the various roles of physical educators, including providing personalized physical activity plans, promoting mindfulness, educating on nutrition and healthy habits, and advocating for physical education. The paper emphasizes the need for physical educators to collaborate with other health professionals, such as school nurses and counsellors, to develop comprehensive health and wellness programs for students. The paper concludes with prospects for physical educators to address the issue of excessive screen time among adolescents. Physical educators can integrate technology into physical education programs and advocate for increased physical education and reduced screen time in schools. They can also work to promote access to technology and provide resources for students who may not have access to digital devices at home.

**Key Words:** Screen Time, Adolescents, Reward System, Blue Light, Cardiovascular Diseases

## INTRODUCTION

The increasing prevalence of digital devices and technology has led to a significant rise in screen time among adolescents, resulting in a range of health risks. Physical educators have a critical role to play in promoting healthy habits, physical activity, and social and emotional development to mitigate the negative effects of screen time on young people. This paper provides an overview of the impacts of excessive screen time on physical and mental health and explores the various roles of physical educators in addressing this issue. Physical health problems associated with excessive screen time include obesity, cardiovascular disease, and other health issues resulting from sedentary lifestyles. The American Heart Association (2022) reports that the lack of physical activity is a major contributing factor to obesity, which increases the risk of cardiovascular disease and other chronic health problems. Furthermore, excessive screen time can disrupt sleep patterns, leading to sleep deprivation, which can cause additional health problems, including increased risk of obesity, depression, and anxiety (American Academy of Pediatrics, 2016). Mental health problems such as stress, anxiety, and depression are also linked to excessive screen time. The American Psychological Association (2017) has found that social media and digital technology use can lead to feelings of isolation, FOMO (fear of missing out), and other negative mental health outcomes.

Moreover, excessive screen time can interfere with social development and limit the development of vital interpersonal skills, such as effective communication and relationship building (Twenge & Campbell, 2019). Physical educators can play a crucial role in promoting healthy habits and mitigating the negative effects of screen time on young people. By incorporating technology-free activities into their programs, such as outdoor games and sports, physical educators can encourage a balanced lifestyle and promote physical activity (Centers for Disease Control and Prevention, 2018). According to the CDC, regular physical activity in childhood and adolescence improves strength and endurance, helps build healthy bones and muscles, and can prevent obesity. Physical educators can also provide personalized physical activity plans and teach students about the benefits of physical activity, which can motivate them to adopt healthy habits (Webb, 2018). Physical educators can also promote mindfulness practices to reduce stress and anxiety. Mindfulness has been shown to reduce stress, anxiety, and depression, and can help students develop the skills needed to manage their emotions and mental health (Kumar & Puranik, 2020). Additionally, physical educators can encourage social connections by promoting teamwork and collaboration in physical activity programs. According to research, social connections play a vital role in

reducing stress and promoting positive social and emotional development (Holt-Lunstad et al., 2015). Moreover, physical educators can educate students about the dangers of excessive screen time and promote healthy sleep habits. By working collaboratively with school nurses and counsellors, physical educators can help students understand the negative health impacts of excessive screen time and provide them with tools to manage their screen use. Physical educators can also advocate for increased physical education and reduced screen time in schools, in collaboration with other health professionals and stakeholders (Katzmarzyk & Denstel, 2016).

#### *Adolescents Addiction to Screens*

The age range for adolescents usually spans from around 10 to 19 years old. Adolescents may become attached to things easily due to a combination of brain development, social and emotional factors, self-expression, coping mechanisms, and the reward centres of the brain. The adolescent brain is more susceptible to the reward centres being activated, which can make them more prone to developing attachments to things that bring them pleasure or positive reinforcement. This can include objects such as video games or social media platforms that provide instant gratification and reward. There are several reasons why electric media can be so catchy and why adolescents may become addicted to devices with screens. Some of the reasons are: -

- **Reward System:** Screens and electronic media often provide a constant stream of stimuli, such as notifications, messages, and social media updates, which can activate the brain's reward system. When adolescents receive positive feedback, such as likes or comments on social media, their brains may release dopamine, a neurotransmitter associated with pleasure and reward, which can reinforce the behaviour and lead to addiction.
- **Social Connection:** Adolescents are in a developmental stage where they are seeking social connections and a sense of belonging. Social media and other electronic media can provide an opportunity to connect with peers and access information about the world, which can be rewarding and reinforce the behaviour.
- **Escapism:** Screens and electronic media can provide an escape from the stresses of daily life, such as school or family problems. For some adolescents, using screens can be a way to cope with negative emotions and provide a temporary distraction from difficult emotions or situations.
- **Availability:** Electronic media is often readily available and accessible, making it easy for adolescents to use screens and become addicted.
- **Technology Design:** Technology is designed to be engaging and attention-grabbing, with many devices and apps using techniques such as infinite scrolling or Autoplay to keep users engaged. These design features

can contribute to addiction and make it harder for adolescents to disconnect from screens.

Additionally, social norms around screen use can contribute to the behaviour, with many adolescents feeling pressure to keep up with their peers and stay connected to social media.

#### *Impact of Screen Time n Health*

Screen time is the amount of time spent using electronic devices such as smartphones, tablets, and computers. Adolescents are the largest group of screen users. Some of the health problems associated with screen time include: Physical health problems, Mental health problems, Sleep problems and Eyestrain.

- **Physical inactivity, Poor diet, Sleep disturbances,** Chronic Stress and reduced social interaction due to increased screen time can lead to obesity, cardiovascular diseases, and high blood pressure. Adolescents having increased screen time may experience high levels of stress, which can lead to the release of stress hormones like cortisol. Elevated levels of cortisol can contribute to inflammation, which is a risk factor for cardiovascular diseases. Poor sleep has also been linked to weight gain and an increased risk of cardiovascular disease.
- **Mental health Problems** from excessive screen time includes increased stress, anxiety, and depression. Some of the possible ways in which excessive screen time is affecting mental health are: -
- **Social Isolation:** Spending too much time on screens can lead to social isolation, which can contribute to feelings of loneliness and depression.
- **Exposure To Negative Content:** Adolescents who spend a lot of time on social media or other online platforms may be exposed to negative and stressful content, such as cyberbullying, news about current events, or other stressful situations. This can lead to increased stress and anxiety.
- **Addiction:** Excessive screen time can lead to addiction to online platforms or video games, which can lead to withdrawal symptoms and negative mental health outcomes like stress and depression.

Screen time can interfere with sleep quality and quantity, leading to sleep deprivation and other sleep problems some of the possible ways in which excessive screen time can affect sleep time are: -

- **Blue Light:** The blue light emitted by screens can interfere with the production of melatonin, the hormone that regulates sleep. Adolescents who spend a lot of time on screens may experience sleep disturbances.
- **Reduced Sleep Time:** Spending too much time on screens, particularly in the evening or at night, can reduce the

amount of time adolescents spend sleeping. This can lead to sleep deprivation, which can cause a range of negative outcomes such as fatigue, decreased cognitive function, and mood disturbances.

- *Delayed Sleep Onset*: Using screens before bed can delay the onset of sleep, making it harder to fall asleep at a reasonable time. This can lead to difficulties waking up in the morning, leading to a cycle of sleep deprivation.
- *Interrupted Sleep*: Notifications from phones or other electronic devices can interrupt sleep and cause adolescents to wake up throughout the night, leading to sleep disruptions and reduced sleep quality.

Prolonged screen time can lead to eye strain, headaches, and other eye problems because of several reasons like the blue light emitted by screens can contribute to digital eye strain, which is characterized by symptoms such as dry eyes, headaches, and blurred vision.

- *Reduced Blinking*: When looking at screens, adolescents may blink less frequently, which can contribute to dry eyes and eye strain.
- *Screen Glare*: Reflections and glare on screens can also contribute to eye strain and discomfort.
- *Accommodation Problems*: When looking at screens for long periods, the eyes may have to constantly adjust to different depths of field, which can lead to accommodation problems and eye strain.
- *Myopia*: Some studies suggest that excessive screen time may be linked to an increased risk of myopia, or near-sightedness.

### *The Role of Physical Educators*

Physical educators play a critical role in promoting physical activity and healthy habits among adolescents. They have the expertise to design and implement physical activity programs that can help mitigate the negative effects of screen time. Some of the ways in which physical educators can contribute to reducing the health risks associated with screen time includes

- *Raising Awareness*: Physical educators can raise awareness about the dangers of excessive screen time and encourage adolescents to limit their screen time to healthy levels.
- *Encouraging Physical Activity*: Physical educators can promote physical activity and encourage adolescents to engage in physical activity for at least 60 minutes per day. This will help reduce sedentary behaviour and promote overall health and wellness.
- *Incorporating Technology-Free Activities*: Physical educators can incorporate technology-free activities into their programs, such as outdoor games and sports, to encourage adolescents to take breaks from screens.

- *Promoting Healthy Sleep Habits*: Physical educators can educate adolescents about the importance of sleep and provide tips for improving sleep quality and quantity, such as avoiding screens for at least an hour before bedtime.
- *Providing Personalized Physical Activity Plans*: Physical educators can develop individualized physical activity plans for students based on their interests, fitness levels, and health needs.
- *Fostering Social Connections*: Physical educators can create opportunities for students to engage in physical activities together, fostering social connections and promoting positive social and emotional development.
- *Educating On Nutrition*: Physical educators can teach students about the importance of nutrition and healthy habits, including proper hydration, healthy eating, and good hygiene practices.
- *Promoting Mindfulness*: Physical educators can incorporate mindfulness practices into their programs, such as yoga or meditation, which can help reduce stress and promote mental health.
- *Advocating For Physical Education*: Physical educators can advocate for the importance of physical education in schools and communities, emphasizing the critical role it plays in promoting overall health and well-being.
- *Collaborating With Other Health Professionals*: Physical educators can work collaboratively with other health professionals, such as school nurses and counsellors, to develop comprehensive health and wellness programs for students.

### **CONCLUSION**

Excessive screen time has significant impacts on the physical and mental health of adolescents. Physical educators play a critical role in promoting physical activity and healthy habits, which can help mitigate the negative effects of screen time. By raising awareness about the dangers of excessive screen time, incorporating technology-free activities, and promoting healthy sleep habits physical educators can help adolescents lead healthier and more balanced lives. In conclusion, the role of physical educators in mitigating health risks from increasing screen time among adolescents is crucial. By promoting physical exercise, health lifestyle, and responsible use of technology, physical educators can play a vital role in promoting the overall well-being of young people.

### **DISCUSSION**

The issue of excessive screen time among adolescents is not likely to diminish in the near future. With the increasing prevalence of technology and digital devices in our daily lives, it is essential to continue exploring ways to mitigate the negative impacts of excessive screen time. In the future, physical educators

can play a more significant role in integrating technology into physical education programs. This could involve the use of wearable technology, such as fitness trackers, to track physical activity and provide students with feedback on their progress. Physical educators can also use virtual reality technology to create immersive experiences that promote physical activity and engage students in healthy habits. Additionally, physical educators can collaborate with school administrators and policy-makers to advocate for increased physical education and reduced screen time in schools. By working with parents, health professionals, and other stakeholders, physical educators can help create a culture that prioritizes physical activity and healthy habits over excessive screen time. The issue of excessive screen time among adolescents is a complex and ongoing concern. As technology continues to evolve, it will be essential for physical educators to adapt and incorporate new technologies into their programs to engage and motivate students to adopt healthy habits.

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#### **Author Information**

<sup>1</sup>**Mansi George**; Research Scholar, Department of Physical Education and Sports, Central University, Mahendargarh, Haryana, India, Email: [mannugeorge@gmail.com](mailto:mannugeorge@gmail.com)

<sup>2</sup>**Sandeep Dhull**; Department of Physical Education and Sports, Central University, Mahendargarh, Haryana, India, Email: [sandeepdhull@cuh.ac.in](mailto:sandeepdhull@cuh.ac.in)

**Corresponding Author:** Mansi George, Email: [mannugeorge@gmail.com](mailto:mannugeorge@gmail.com)

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