



# A DESCRIPTIVE STUDY ON SCREEN TIME AND CHILD MENTAL ABILITY IN TAMILNADU

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## ABSTRACT

*Screen exposure leads to impaired quality of life of children and may have adverse outcomes markedly during early phase of development. Increased screen exposure has been linked to language delay, depreciated motor skill development and delayed cognitive development. Youth is a sensitive time, and the habits acquired during this period last a lifetime. Today's generation wastes their time with smartphones and other electronic media, which prevents them from focusing on academic and other healthy activities. The aim of the present study was to investigate the problem of screen time and child mental ability. We can safely assume that a high percentage of adolescents in Tamilnadu spend more than the recommended screen time on smartphones and a significant proportion of them appear to have negative academic outcomes.*

**KEYWORDS:** *Screen exposure, screen time, infants, young children, speech disorder*

## INTRODUCTION

Screen time refers to the duration of time that a person spends watching television and cell phones. Screen exposure includes both traditional (like watching television) and new digital or social media like usage of smart phones/tablets, videos and computers for recreational activities, video and computer gaming, social media, mobile phone applications, internet use. American Academy of Paediatrics (AAP) suggests avoidance of any type of screen-based media other than video-chatting for children less than 18 months.

Screen exposure leads to impaired quality of life of children and may have adverse outcomes markedly during early phase of development. Increased screen exposure has been linked to language delay, depreciated motor skill development and delayed cognitive development. Youth is a sensitive time, and the habits acquired during this period last a lifetime. Today's generation wastes their time with smartphones and other electronic media, which prevents them from focusing on academic and other healthy activities. The aim of the present study was to investigate the problem of screen time and child mental ability.

According to World Health Organization report, 'Sedentary lifestyle: a global public health problem' identified sedentary lifestyle as among the top ten leading causes of death and disability in the world. Various international and national organizations have recommended that children above the age of 2 years should not spend more than 2 hours a day in front of the screen. Though there are many potential academic and social benefits for TV/ Computer use, it leads to many negative health outcomes such as unhealthy eating, sedentary lifestyle, physical inactivity, low academic performance, and aggressive behaviour. It was also demonstrated that reducing screen time was associated with reduction in body weight, body fat, and obesity prevalence. In the long term sedentary behaviour have been identified as major independent risk factor for mortality and morbidity for non-communicable diseases. It is one of risk factor which can be modified to counteract the negative effects that may follow in adulthood.

Prolonged screen time affects children's communication and problem-solving skills, emphasizing the need to limit exposure. Experts advise against screen time for children under 1 year and highlight the importance of active communication and physical movements in child development. For the last few decades international and national studies have shown a trend towards early onset and increasing prevalence of non-communicable diseases especially overweight and obesity among children and adolescents.

Exposure of young children to screen-based media is a global concern, but the gravity of this situation has not been studied adequately in young children in the Indian setting. Therefore the present study aims to determine the



prevalence and practices of exposure to screen-based media in children up to 10 years of age and parental perceptions of the same.

## OBJECTIVES

The major objectives of the study is to investigate the problem of screen time and mental ability of the children in Tamilnadu.

## METHODOLOGY

The study includes the secondary data source from various reports and publications. It has been processes, tabulated and interpreted.

## GEOGRAPHICAL AREA

The area which is included for the study is the state of Tamilnadu.

## REVIEW OF RELATED LITERATURE

Major findings have also been reported worldwide, e.g., by Peiro´- Velert et al., who stated that overall screen media use among Spanish adolescents was higher in boys (total time 5.5 hours) than in girls although the A meta analysis by Kaur et al also found that boys under the age of five had higher overall screen time than girls. In their study among adolescents in Singapore, Toh et al. observed no significant gender differences in screen time, but found that smartphone ownership was higher among adolescent girls, while adolescent boys owned more game consoles and desktop computers. Adolescent screen time in Singapore (mean = 4.4 hours, SD= 4 hours) was also much higher overall than that in the present study.

McManus et al. found no significant relationship between screen time and gender in their study on the influence of gender on screen time among adolescents in the United States. The average screen time observed by Syväoja et al. in Finnish children was 3.6 hours compared to 2.8 hours in the ongoing study. Unlike the present study, no significant difference was found between the two genders.

Comparable screen time was found in Cheng S et al.'s study on Japanese children aged 18-30 months, where 55% of male children over 18 months had screen time of >3 hours per day and 45% of female children of the same age had screen time of >3 hours. In the same study, boys' and girls' screen time was found to be 45% and 40%, respectively, at 30 months of age. Pagani et al., in their study on screen time in early childhood, found significant differences in screen time at 29 months and 59 months of age (1.26 and 1.85 hours, respectively).

## RESULTS AND DISCUSSIONS

Longer screen time is due to poor performance in young children and we found similar results in our study for those who spend more than 3 hours per day on screens. Several studies have been conducted to examine the impact of screen time on various domains of learning and academic performance in children. However, the present study specifically investigated the association between screen time and their mental ability among children in Tamilnadu, India. As no study has been conducted in this region to assess the association between screen time and mental ability among young children.

In the current study, it was revealed that screen time of more than three hours per day is associated with poor mental ability. Excessive screen time for more than 2 hours daily has been found to be associated with increased psychosocial problems, elevated blood pressure, elevated serum cholesterol and obesity among children.

In today's digital age, children are increasingly exposed to screens from an early age, whether it's through smartphones, tablets, computers, or television. While technology offers many benefits, excessive screen time can have significant effects on children's development and mental health. In this blog post, we'll explore the impact of screen time on children and discuss strategies for promoting healthy screen habits.

### Cognitive Development

Excessive screen time has been linked to delays in cognitive development in young children. Excessive use of screens can interfere with activities that are critical for brain development, such as physical play, social interaction, and hands-on learning experiences. This can impact attention span, problem-solving skills, and language development.



### Physical Health

Extended screen time often leads to a sedentary lifestyle, contributing to physical health issues such as obesity, poor posture, and vision problems. Spending too much time in front of screens can also disrupt sleep patterns, leading to sleep disturbances and fatigue. Encouraging children to engage in outdoor activities and physical play can help counteract the negative effects of excessive screen time on physical health.

### Mental Health

There is growing evidence linking excessive screen time to mental health issues such as anxiety, depression, and behavioral problems in children. Excessive exposure to screens, particularly content that is violent, inappropriate, or stressful, can negatively impact children's emotional well-being and psychological development. It's essential for parents to monitor and limit screen time to reduce the risk of mental health issues and promote positive coping strategies.

### Strategies for Promoting Healthy Screen Habits:

- Set limits on screen time: Establish clear rules and boundaries around screen time, including designated screen-free times and areas in the home.
- Encourage alternative activities: Encourage children to engage in a variety of activities beyond screens, such as reading, outdoor play, creative arts, and hobbies.
- Be a role model: Limit your own screen time and demonstrate healthy screen habits to your children. Set a positive example by prioritizing face-to-face interactions and quality time together.
- Monitor content: Be aware of the content your children are accessing online and ensure it is age-appropriate and suitable for their developmental stage.
- Foster open communication: Talk to your children about the importance of balanced screen use and the potential impact of excessive screen time on their health and well-being.

### SUGGESTIONS

There is an urgent need to guide parents regarding the screen exposure practices of their children. In view of high proportion of young children having screen exposure for substantial duration, guidelines specific to Indian context need to be framed and disseminated.

### CONCLUSION

It can be safely assume that a high percentage of adolescents in Tamilnadu, India, spend more than the recommended screen time on smartphones and a significant proportion of them appear to have negative academic outcomes. A statistically higher percentage of boys reported screen time of > 3 hours than girls, although no difference in screen time was found between different age groups of adolescents. It was found that the academic performance of young children decreases when they spend 3 hours per day in front of a screen, and the average percentage of grades achieved also decreases with increasing screen time. Because parents are their children's first teachers, they need to assess the impact of electronic devices on academic performance and family interaction and encourage positive use while reducing negative effects. The study; therefore, suggests that parents and teachers should strive to limit their children's screen time to ensure that academic performance is not affected.

### Area for Further Research

The scope for further is very vast in the field of psycho social aspect of children and their cognitive ability. Moreover district wise analysis could be made for further

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