

Screen Time Exposure in Youth with Autism Spectrum Disorder: Findings from a Sample of 190 Participants

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Abstract

Original Research Article

Introduction: Screen use has become ubiquitous in children's lives, raising concerns about its potential negative effects, particularly in vulnerable populations such as children with Autism Spectrum Disorder (ASD). This study aims to quantify screen exposure habits in youth with ASD and assess whether these practices are excessive or problematic compared to existing data. **Materials and Methods:** This was a cross-sectional descriptive study involving 190 children with ASD. Data were collected using a questionnaire distributed to parents in paper format at specialized care facilities and electronically through Facebook groups for parents of children with ASD. Children whose screen time was primarily controlled or used exclusively for educational/therapeutic purposes were excluded. Participants were categorized into four groups based on daily screen time: 0 hours, less than 2 hours, between 2 and 4 hours, and more than 4 hours. **Results:** Among the 190 participants, 12.6% had no screen exposure, 39.5% spent less than 2 hours per day on screens, and 47.9% exceeded this threshold. Of these, 14.2% demonstrated intensive screen use, exceeding 4 hours daily, with some families reporting all-day exposure. **Discussion:** These findings align with existing literature showing that children with ASD spend more time on screens than their neurotypical peers. Excessive screen use is associated with social difficulties, repetitive behaviors, and an increased risk of problematic or compulsive use. Parents may unintentionally reinforce this behavior to manage their child's symptoms, often at the expense of more socially engaging and cognitively enriching activities. **Conclusion:** This study highlights the need for tailored interventions to regulate screen time, promote diverse and social activities, and support families. Such efforts are crucial to preventing the negative impacts of excessive screen use and fostering the overall development of children with ASD.

Keywords: Screen exposure, autism spectrum disorder, ASD, social media, internet.

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INTRODUCTION

The use of screens has become ubiquitous in children's daily lives, raising concerns about their potentially negative effects, particularly among vulnerable populations such as children with Autism Spectrum Disorder (ASD).

According to the recommendations of the World Health Organization (WHO), it is advised not to expose children under 2 years of age to screens. For children aged 2 to 4 years, the World Health Organization recommends limiting screen time to one hour per day, emphasizing that less is better. For children over 5 years of age, the World Health Organization has not established specific guidelines regarding screen exposure duration. However, overexposure is generally defined when screen use interferes with daily activities or when the child shows signs of dependence.

However, several studies have shown that children with autism spectrum disorder spend more time in front of screens than their neurotypical peers. Mazurek *et al.*, (2013) reported that children with autism spectrum disorder devote approximately 62% more time to screens than to all other non-screen-related activities combined. Moreover, excessive screen use is often associated with problematic behaviors such as reduced social interaction, difficulties in emotional regulation, and a negative impact on academic performance.

Nonetheless, the appeal of digital media for children with ASD, while often beneficial for the development of certain social and educational skills, can turn into problematic use. This phenomenon remains under documented in the literature.

The objective of this study is to quantify screen time habits in a population of youth with autism

spectrum disorder and to determine whether these practices can be considered excessive or addictive compared to existing data.

MATERIALS AND METHODS

Study population: 190 patients diagnosed with autism spectrum disorder without specifying any particular subtypes.

Exclusion criteria:

- Children whose screen time is mainly controlled by their parents.
- Children using digital media exclusively for educational or therapeutic purposes.

Collected measures: Average daily screen time (including television, video games, smartphones, and computers), divided into 4 categories:

- 0 hours (no screen use)
- Less than 2 hours: does not interfere with daily activities
- Between 2 and 4 hours: considered excessive use by parents, interfering with daily activities
- More than 4 hours: considered massive use, potentially lasting the entire day.

Data were collected through questionnaires distributed to the patients' parents.

RESULTS AND DISCUSSION

The results obtained in our sample of 190 patients with Autism Spectrum Disorder (ASD) are consistent with previously documented observations in the literature. In this study, 24 patients (12.6%) had no screen exposure, while 75 (39.5%) spent less than two hours per day in front of a screen. Furthermore, 91 patients (47.9%) exceeded this threshold, and among them, 27 (14.2% of the total sample) demonstrated extremely high usage, regularly exceeding four hours daily, with some families reporting "all-day" exposure.

These local data align with trends identified by several earlier studies. Research on screen exposure among individuals with ASD shows a high usage of television, video games, and the Internet, often at the expense of socializing or interactive activities. Numerous studies (Mineo *et al.*, 2009; Shane & Albert, 2008) have found that individuals with ASD spend more time in front of screens than they do engaging in other leisure activities. For example, a U.S. national study reported that about 41% of parents of adolescents (13–17 years) with ASD indicated that their child spends the majority of their free time playing video games (Mazurek *et al.*, 2012). Boys with ASD reportedly spend an average of 2.1 hours per day playing video games, compared to 1.2 hours for typically developing boys (Mazurek & Engelhardt, 2013b). More generally, within the population as a whole, boys spend more time on

Individuals with ASD appear particularly drawn to non-social media activities (television, video games) rather than social media (e-mails, chats, interactive games). This trend is observed across various populations and age groups and emerges from an early age (Mazurek *et al.*, 2012; Mazurek & Wenstrup, 2013; Orsmond & Kuo, 2011). The social difficulties inherent in ASD, the lack of friendships, and financial or time-related barriers to participating in physical or group activities can encourage resorting to screen activities that are less cognitively and socially demanding (Mazurek *et al.*, 2012; Soden *et al.*, 2017).

Several studies have also established a link between ASD (and sometimes ADHD) and the risk of excessive or addictive use of the Internet, video games, or digital media (Yoo *et al.*, 2004; Finkenauer *et al.*, 2012; Romano *et al.*, 2013; Paulus *et al.*, 2020). Characteristics associated with ASD (restricted and repetitive behaviors, difficulties with emotional regulation, impulsivity) may contribute to problematic and compulsive digital use. While some studies do not systematically show significant differences in addiction rates, most suggest that individuals with ASD are at higher risk than those without ASD and that such excessive use can further reduce opportunities to develop social skills (Mazurek & Wenstrup, 2013; MacMullin *et al.*, 2016; So *et al.*, 2017; Umeda *et al.*, 2019).

Furthermore, parents of children with ASD may unintentionally encourage screen use, aiming to regulate behavior or to benefit from moments of respite (Nally *et al.*, 2000; Gadow & Sprafkin, 1993). However, this strategy risks reinforcing screen time at the expense of other potential activities (Mazurek *et al.*, 2012). The recommendations of the American Academy of Pediatrics, which advocate limited use (1–2 hours per day), are often exceeded among these youths (American Academy of Pediatrics, 2001; Council on Communications and Media, 2016).

In summary, the literature converges on the idea that children and adolescents with ASD are more attracted to screens and spend more time in front of them than their peers without ASD. This finding highlights the need to develop appropriate interventions aimed at regulating screen use, diversifying leisure activities, and supporting social interactions, in order to limit isolation and problematic usage.

CONCLUSION

In conclusion, our study confirms the observations in the literature that individuals with Autism Spectrum Disorder (ASD) tend to engage in screen-based activities more frequently, often surpassing existing recommendations. The collected data show that

a significant proportion of the sample exceeds two hours of daily exposure, and that a subgroup is subjected to particularly intensive use, sometimes exceeding four hours per day. These behaviors are consistent with previous findings highlighting a preference for non-social media activities and the risks of problematic or excessive usage, notably linked to social interaction difficulties, restricted interests, and impulsivity.

These observations underscore the need to develop specific intervention strategies aimed at moderating screen time and encouraging a greater variety of activities, favoring participation in more socially engaging and cognitively stimulating leisure pursuits. Involving families, raising awareness among health and education professionals, and offering targeted support to enhance social and emotional skills are essential steps. Such efforts, combined with a better understanding of individual and environmental factors, will help prevent isolation and the detrimental effects of excessive screen use, while supporting the overall well-being and adaptive development of individuals with ASD.

Future Perspective

Longitudinal research would be valuable to examine the long-term impact of this usage on the social and cognitive development of children with ASD, taking into account differences in content and context of screen use.

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