

Electronic Screen Media Use in Youth With Autism Spectrum Disorder



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KEYWORDS

- Autism spectrum disorder • Electronic media • Social media • Screen time
- Internet addiction • Technology-aided interventions • Family media interventions
- Healthy media use

KEY POINTS

- Extended screen time has a multitude of harmful effects on typically developing youth and those with autism spectrum disorder, including but not limited to physiologic, cognitive, social, emotional, and legal/safety effects.
- Youth with autism spectrum disorder may be even more at risk than typically developing peers for many of these harmful effects.
- Several technology-aided interventions have emerged to help youth with autism spectrum disorder across multiple domains, including social skills, behaviors, communication, academic learning, and adaptive functioning.
- Parents of youth with autism spectrum disorder may benefit from several recommendations and resources from the American Academy of Pediatrics and the American Academy of Child and Adolescent Psychiatry.

INTRODUCTION

Electronic screen media (ESM) play an increasingly prominent role in the lives of children and teenagers. Many typically-developing (TD) youth use media not only for entertainment, but also as a primary form of communication, learning, information gathering, social support, and self-expression.

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Special care must be given to those with autism spectrum disorder (ASD) in the new media environment. The core features of ASD place many individuals at risk for over-use and improper use of ESM, which could result in harmful consequences.

At the same time, the compelling nature of ESM might provide motivation for some youth with ASD to engage in technology-aided interventions (TAI) resulting in improved outcomes. This article discusses these interventions, along with some potential family-oriented interventions.

SCOPE OF MEDIA USE IN YOUTH WITH AUTISM SPECTRUM DISORDER

Youth with ASD watch more television than TD matched peers,¹ and spend approximately 4.5 hours a day on screen time with 2 or less hours dedicated to nonscreen activities.² Youth with ASD spend most of their free time on screens compared with 18% of TD peers, and youth with ASD play video games an average of 1 hour more per day than TD peers³ and tend to have a preference for video games over television.⁴

The difficulty for youth with ASD in disengaging from ESM is further elaborated in parental responses to the Problem Video Game Playing questionnaire. Parents of boys and girls with ASD report snapping, yelling, or getting angry if someone interrupts them while playing video games, and thinking life would be boring without video games more than parents of gender-matched TD peers.² The parents of ASD boys reported their child playing video games longer than they intended to and saying, “just a few more minutes,” and the parents of ASD girls reported that their child plays video games too much, both significantly more than gender-matched TD peers.

Potentially more important than ESM use patterns in youth with ASD is that most do not seem to be using ESM for social purposes. More than half of youth with ASD have never played with a friend over electronic media, and only 15% of youth with ASD engage friends in this manner on a weekly basis.² A total of 64% of children with ASD use media in a nonsocial way, such as playing video games alone or with strangers, or surfing gaming Web sites. Most do not use any form of online communication via e-mail, instant messaging, chat rooms, or social networks. Although only 13% reported using media for social purposes, youth with ASD who identified as girls, Hispanic, and having higher cognitive skills did use media for social purposes significantly more than matched youth with ASD.³

THE UNIQUE INTERPLAY BETWEEN AUTISM SPECTRUM DISORDER SYMPTOMS AND MEDIA

In the last two decades, the prevalence rate of ASD has risen two-fold and now stands at 1 in 68 children. ASD awareness has correspondingly soared through increased media coverage, culminating in the recent introduction of a new character with Autism (Julia) on PBS' Sesame Street television series.

Simultaneous to this spike in ASD prevalence, access to ESM overall has increased exponentially, doubling over a 2-year period between 2011 and 2013.⁵ Children with ASD, who already have a strong predilection for ESM,⁶ currently receive unprecedented daily exposure to ESM beginning in infancy.^{4,7} Research is currently underway in infants, toddlers, and children to determine if exposure to ESM can increase the risk for a child developing ASD, but published literature is still in its early development and no firm conclusions can be drawn.⁸

The exact cause of autism, although currently unknown, is almost certainly a complex interaction between genetic, environmental, and epigenetic factors. Research has implicated upwards of 1000 associated genes^{9,10} and ASD has a high rate of

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