

Screen Addiction in Adolescents: Empirical Analysis of The Links with Attention Disorders and Depression

Ein-Eli Eva

Independent Psychologist, Évreux, France

ABSTRACT

Intensive screen use among adolescents is associated with alterations in attentional functioning and an increase in depressive symptoms. However, findings in the scientific literature remain heterogeneous and sometimes contradictory. This article examines the available empirical data by detailing the protocols of the main studies, and then proposes a critical discussion highlighting the current theoretical tensions. Finally, clinical recommendations are formulated in order to support adolescents presenting problematic screen use and attentional disorders.

*Corresponding author

Ein-Eli Eva, Independent Psychologist, Évreux, France.

Received: May 08, 2026; Accepted: May 15, 2026; Published: May 22, 2026

Introduction

According to adolescence is a period of incomplete brain maturation, particularly at the level of the prefrontal cortex, which is involved in executive functions and emotional regulation. From a neurodevelopmental perspective, this implies that adolescents are particularly sensitive to highly stimulating environments, such as digital technologies [1].

In this context, the issue of “screen addiction” falls within the broader framework of behavioral addictions, although its definition remains debated [2]. In order to move beyond purely descriptive approaches, it is necessary to examine empirical data derived from longitudinal and experimental studies.

Screen Use and Attention Disorders: Empirical Data

A longitudinal study conducted [3]. on a sample of 2,587 American adolescents (aged 15 to 16 years) followed over a 24-month period showed that adolescents frequently exposed to several forms of digital media presented a significantly higher risk of developing symptoms of inattention and hyperactivity.

Overall, highly exposed participants were approximately twice as likely to report ADHD symptoms compared with those with low exposure. Therefore, intensive digital media use may contribute to the emergence of attentional difficulties, while acknowledging that confounding factors cannot be entirely excluded.

These findings are consistent with the study conducted among children and adolescents, which demonstrated that early and prolonged exposure to screens predicts an increase in later attentional problems [4]. According to the authors' hypothesis, this could be due to cognitive overstimulation, whereby fast-paced media environments alter the development of sustained attentional capacities.

Furthermore, provide additional insight through a 2009 study on the cognitive mechanisms involved [5]. They compared individuals who extensively engaged in digital multitasking with individuals who engaged in it minimally. The results suggest that digital multitasking may impair executive functions, although the study does not establish direct causality.

Screen Use and Depression: Empirical Data

The study constitutes a major reference regarding depression [6]. The authors analyzed data from two large American national surveys involving more than 40,000 adolescents. The results show that adolescents spending more than five hours per day in front of a screen present a significantly increased risk of depressive symptoms and psychological distress. Conversely, those whose screen time is moderate exhibit a higher level of well-being. The authors conclude that excessive screen use, rather than screen use itself, is problematic.

A meta-analysis conducted confirms the effects of social media use on depression and anxiety among adolescents [7]. Their analysis demonstrates a significant positive correlation between intensive social media use and depressive symptoms.

Are screens therefore the only problem? Sleep remains an important factor to consider. It was specifically examined, who measured time spent on social media as well as sleep quality using validated scales [8]. The results indicate that individuals with intensive social media use present a significantly higher probability of sleep disturbances. The authors suggest that this sleep disruption may constitute a mediating mechanism between screen use and depression.

Social comparison processes must also be taken into consideration, as they constitute a crucial element during adolescence. The study

shows that exposure to highly positive and self-enhancing social media profiles leads to a significant decrease in self-esteem, particularly among individuals with a strong tendency toward social comparison [9]. This decrease in self-esteem is a well-established risk factor for depression.

Discussion

A Scientific Field Marked by Tensions

The analysis of empirical studies highlights an apparent convergence toward the existence of a link between excessive screen use, attention disorders, and depression. However, this convergence actually conceals a profound scientific debate regarding the nature of these relationships and their interpretation.

On the one hand, some researchers support the idea of a significant harmful effect of screens. The findings showing that high exposure to digital media precedes the onset of ADHD-like symptoms, as well as those of highlighting an increase in depressive symptoms among highly exposed adolescents, suggest that screens may constitute a direct risk factor. From this perspective, digital technologies are designed to intensively capture attention and may durably disrupt cognitive and emotional mechanisms, particularly in adolescents.

In clinical practice, I frequently receive adolescents who suffer from attentional difficulties without necessarily identifying them as such. As healthcare professionals, it is our duty to distinguish what falls within normal developmental processes-given the intense period that adolescence represents-from what is pathological, such as attention disorders or screen addiction. The issue, in my opinion, is that the symptoms of behavioral addiction are frequently normalized by families or even concealed by parents. When I discuss adolescents' evening routines, it is very rare for parents to mention their screen time. Conversely, when I explicitly ask about the child's screen time, parents are often unable to answer. Several reasons may explain this silence: they do not want to know the answer, they do not monitor screen time, or the child has access to multiple devices, making it difficult to track overall consumption.

In such cases, it seems important to raise parents' awareness regarding the effects of screens on the brain and on child development. Beyond health risks, the effects on sleep, mood, socialization, and concentration remain, in my opinion, considerable.

I take the time not to monitor the adolescent's screen time excessively, but rather to help them become aware of their use of screens: to cope with boredom, avoid rumination, or manage to fall asleep. Screens have become palliative tools for all the small difficulties of daily life. In the absence of socialization, adolescents retreat to social media; when faced with frustration, they seek an immediate source of dopamine through applications; when confronted with stress, their phone becomes comparable to a comfort object. Screens, and particularly smartphones, have become extensions of children's personalities.

There are even applications designed for younger children (around 7 years old) that function as a form of WhatsApp for children. They can exchange voice messages and photos. This enables children to communicate outside school hours. Is this an advantage? To a certain extent, it contributes to the child's socialization. However, the disadvantage, in my opinion, is that school extends into home life. Whereas the home was once a neutral and secure place where school-related difficulties no longer existed, bullying and toxic

behaviors now cross our doors and windows to infiltrate our homes. Children are therefore never truly at peace. Exclusionary or defamatory behaviors continue online.

The solution does not lie in completely disconnecting children, as this may increase the risk of social isolation from peers, but rather in promoting reasoned consumption. For example, parents were long encouraged to discuss violent films and scenes with children so as not to leave them alone with these images. Based on my experience, it is important to do the same thing with social media. What we see on the internet is a distorted version of reality and does not reflect the world in which we live. Parents must engage with trends in order to explain them rather than merely endure them.

For example, I have an 11-year-old patient who owns a mobile phone in order to communicate with her parents following their separation. She loves YouTube and beauty videos. At 11 years old, she explained during therapy sessions that she follows an 11-step skincare routine and applies anti-aging products every evening. Why? Because the internet says so. During subsequent sessions, she was never able to explain the qualities or properties of the products she used. She imitates what she sees and no longer demonstrates critical thinking. My work therefore consisted of encouraging her to look beyond what is shown, verify information, seek opposing arguments, and remain cautious.

Another patient of the same age does not own a mobile phone and attends middle school. This lack of technology in her life has isolated her from her peers. They discuss subjects outside school that she knows nothing about, organize outings and jokes during recess that she discovers too late. In this situation, what is the appropriate position for parents? A controlled and reasoned use of screens. Adolescents and preadolescents must understand that smartphones are not intended to serve as palliative tools for boredom. But how can this be achieved? By setting an example. If parents are not simultaneously using their phones while watching a film or talking with family members, it becomes easier for the child to imitate this behavior.

I believe the most striking example remains waiting rooms. As a professional, I often observe people in waiting rooms at hairdressers' offices or medical practices. I notice that everyone is physically together, yet immersed in different worlds through screens, smartphones, or tablets.

If parents talk with their child in the doctor's waiting room instead of scrolling through their phones, the child will not need to seek another source of distraction.

Nevertheless, several authors relativize the theoretical conclusions discussed above. The study shows that the impact of digital technologies on psychological well-being is statistically significant but extremely small in magnitude [10]. According to these authors, the effects of screens are often overestimated in public debate, while other variables, such as the quality of social relationships or the family environment, play a far more determining role.

Of course, within the framework of therapy, we must take these different determinants into consideration, but it remains extremely difficult to obtain reliable information from parents. For example, a 17-year-old patient came to consultation for anger management problems. After several sessions, he told me that he wished to remain unintelligent. I was astonished by these words, which appeared to come out of nowhere.

He explained the context to me: his parents constantly tell him that he is intelligent and always attribute his poor academic results to external factors—a bad teacher, a difficult period, fatigue, an unfair test, and so forth. The adolescent suffers from severe screen addiction. He uses various strategies to keep his old phone and consume online content after curfew hours. His parents were completely unaware of this. He reports concentration and comprehension difficulties, even during very simple reading tasks. His screen time is estimated at 8 hours per day.

The question I ask myself is the following: where does he find these 8 hours per day when he attends school from 8:30 a.m. to 6:00 p.m. every day and spends approximately one hour per day on homework? He sacrifices his sleep time. Young people underestimate the importance of boredom and creativity. He scrolls endlessly and only falls asleep from exhaustion. In class, he is punished for excessive smartphone use. He can no longer function without it; he no longer knows how to tolerate boredom and, above all, he cannot tolerate frustration. Why? Because his frustration has always been distracted by technological means rather than confronted directly.

Have you never seen parents in restaurants putting cartoons on for a child instead of involving them in the meal? The use of technology from an early age in order to avoid being disturbed by a child has become common practice. As both a psychologist and a mother, I can say that a child's role has never been to remain silent. Let children fulfill their primary mission: to be children, to play, laugh, shout, and cry. No one will judge you with condescension, because we are all in the same situation. Yet it is unfortunate to observe that we prefer to delegate our children's education to technological tools rather than confront the challenges of the next generation directly.

Children are the product of our education. If we entrust them to cartoons, they do not learn to know themselves, but instead merely reproduce SpongeBob dialogues. The identity construction of children and adolescents should not depend on technological tools, but on parental education.

Returning to our initial hypothesis concerning the link between attention disorders, screen use, and/or depression, this debate points to a major methodological difficulty: establishing clear causality. Longitudinal studies suggest that screen use may precede certain disorders, but they also show that adolescents who are already vulnerable on an attentional or emotional level tend to use screens more frequently. This bidirectional relationship renders any simplistic conclusion inadequate.

Furthermore, as Dimitri A. Christakis (2019) emphasizes, the absence of consensual diagnostic criteria limits the validity of studies. Some researchers therefore prefer to speak of problematic use rather than addiction, in order to avoid excessive medicalization of behaviors that may sometimes be normative during adolescence.

Finally, the very nature of digital use complicates the analysis. Screens do not constitute a homogeneous entity, and their effects vary depending on whether the use is passive, such as scrolling through content, or active, such as engaging in social interactions. This heterogeneity makes it difficult to formulate universal recommendations. It therefore requires healthcare professionals to pay close attention to the types of usage and content involved and to adapt their recommendations over the long term. Progressive withdrawal should always be preferred.

Thus, the current scientific literature finds itself in a paradoxical position. On the one hand, it highlights robust associations between screen use and psychological disorders; on the other hand, it emphasizes the impossibility of formulating strong and consensual causal conclusions. This situation leads to uncertainty regarding the recommendations that should be formulated, both clinically and societally.

Conclusion Between Scientific Uncertainty and The Need for Action

The current state of knowledge does not allow for a definitive conclusion regarding the causal role of screens in attention disorders and depression among adolescents. The available data suggest that screens may act as risk or aggravating factors, but they constitute neither a unique cause nor a sufficient determinant.

This uncertainty places psychologists in a delicate position, insofar as it becomes difficult to formulate clear and universal recommendations. Strictly prohibiting screens appears excessive and unrealistic in contemporary society, whereas a total absence of regulation ignores the risks identified by research. As a result, a form of uncertainty emerges in professional practices, reflecting the tensions within the scientific field. One can only imagine what parents experience, torn between the need to satisfy their children's needs and the desire to protect them from an invisible, ill-defined, and poorly understood threat.

Despite these uncertainties, certain psychological recommendations may be formulated in order to support adolescents presenting problematic screen use and attentional difficulties.

First, it appears essential to adopt an individualized approach focused on the patient's overall functioning rather than solely on-screen time. Clinical assessment should make it possible to identify the functions fulfilled by screen use, whether these involve emotional regulation, avoidance, or the search for stimulation. This functional understanding is essential in order to guide treatment and adapt recommendations as closely as possible to the patient's reality.

From a therapeutic perspective, cognitive-behavioral approaches appear particularly relevant. They make it possible to work on behavioral regulation, impulsivity management, and time organization. For adolescents presenting attention disorders, specific work on executive functions may be considered, particularly through exercises aimed at strengthening concentration and planning abilities.

The issue of sleep must also be systematically addressed. Establishing routines that promote falling asleep without screens constitutes a simple yet effective intervention, given the central role of sleep in emotional and cognitive regulation. For this reason, it seems important that all parties remain attentive to this indicator: the patient, the psychologist, and the parents as well. In clinical practice, I have often observed adolescents' frustration when discussing their sleep habits and sleep quality, as they experience this as unfair when their own parents fall asleep in front of the television. It is therefore important to help families understand that children and adolescents need consistency and role modeling regarding healthy behaviors.

We cannot demand that adolescents distance themselves from their peers for health-related reasons if we ourselves are incapable of doing so. It is therefore essential to help them distinguish between need and desire. They may want to use social media, but they do

not need it. This desire is created by marketing strategies and the highly optimized algorithms of major corporations. Adolescents must become aware that this withdrawal process will be long and requires the participation of everyone involved.

Furthermore, it is recommended to encourage alternative activities, particularly physical and social activities, in order to rebalance sources of gratification and reduce dependence on digital stimulation. The objective is not to eliminate screens, but to restore a diversity of experiences. I often encourage adolescents to confront boredom, whether in the context of depression or attention disorders. It is important for them to learn how to occupy themselves independently and for their own satisfaction, rather than doing things merely to display them to the rest of the world. The objective is also to reconnect with their genuine desires and needs rather than simply following trends.

Finally, the involvement of the family environment is crucial. Parental support aimed at establishing a coherent and non-conflictual framework around digital usage may help limit excessive behaviors. The goal is less about imposing strict prohibitions than about co-constructing rules adapted to the adolescent's age and needs.

Ultimately, when faced with an object as complex as screen use, scientific caution must be accompanied by clinical pragmatism. The challenge is not to demonize digital technologies, but to understand the conditions under which their use becomes problematic in order to better support adolescents within an environment that has become inseparable from their development.

The clinical examples presented in this article are anonymized composite vignettes derived from clinical practice and are included for illustrative purposes only.

References

1. Casey BJ, Jones R, Hare T A (2008) The adolescent brain. *Annals of the New York Academy of Sciences* 1124: 111-126.
2. Christakis DA (2019) The challenges of defining and studying "digital addiction". *JAMA* 321: 2277-2278.
3. Ra CK, Cho J, Stone MD, Cerda JDL, Goldenson NI, et al. (2018). Digital media use and ADHD symptoms. *JAMA* 320: 255-263.
4. Swing EL, Gentile DA, Anderson CA, Walsh DA (2010) Media exposure and attention problems. *Pediatrics* 126: 214-221.
5. Ophir E, Nass C, Wagner AD (2009) Cognitive control in media multitaskers. *PNAS* 106: 15583-15587.
6. Twenge JM, Campbell WK (2018) Screen time and well-being. *Preventive Medicine Reports* 12: 271-283.
7. Keles B, McCrae N, Grealish A (2020) Social media and depression. *International Journal of Adolescence and Youth* 25: 79-93.
8. Levenson JC, Shensa A, Sidani JE, Colditz JB, Primack BA (2016) Social media use and sleep disturbance. *Preventive Medicine* 85: 36-41.
9. Vogel EA, Rose JP, Roberts LR, Eckles K (2014) Social comparison and social media. *Psychology of Popular Media Culture* 3: 206-222.
10. Orben A, Przybylski AK (2019) Digital technology and well-being. *Nature Human Behaviour* 3: 173-182.

Copyright: ©2026 Ein-Eli Eva. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.