

Digital Parenting and Adolescent Gaming: Navigating Risks and Responsibilities

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ABSTRACT

In today's digital age, technology has become a crucial element of adolescents' life. Digital gaming provides enjoyment, learning, and social connection. However, excessive gaming can harm teens' mental health, academic performance, and social connections.

Addiction to digital games among adolescents is a developing concern worldwide due to the increasing number of players and the negative impacts on their personal lives, including health and social life. A review of the literature reveals various elements contributing to children's standing in their all-powerful peer group. digital gaming addiction. Only a few studies in the literature suggest that some type of video game product for parents known as a loot box can be purchased with real money, but its contents are randomized. be a cause of digital game addiction, but the question of how parenting conditions influence a child's addiction to digital games is not addressed adequately.

Digital gaming is an important part of adolescent life, providing opportunities for cognitive stimulation, social connection, and entertainment while also posing documented risks such as problematic gaming, exposure to violent or manipulative content, predatory contact, monetized gambling-like mechanics, and disrupted sleep and family function. Gaming has evolved from a console-centric hobby to an always-connected, monetized, and socially networked ecosystem. Traditional parenting approaches often fail to address the challenges of today's rapidly changing reality.

This review synthesises recent empirical and theoretical work on adolescent gaming in order to (a) describe the main risks of adolescent gaming, (b) describe the developmental and social benefits of gaming, (c) describe parental mediation strategies and their effectiveness, and (d) propose a shared-responsibility framework involving parental, industry, educational, and policy responsibilities.

A narrative review method was adopted. Peer-reviewed articles, meta-analyses, systematic and scoping reviews, and reports by recognized health and research bodies (e.g., World Health Organization, American Psychological Association, Pew Research Center, and Common Sense Media) published primarily between 2011 and 2026 were identified through

structured searches of Google Scholar, PubMed/PMC, ScienceDirect, Wiley Online Library, Frontiers, and MDPI. The search terms were combined with Boolean operators: "adolescent(s)" OR "teen(s)" AND "video game(s)" OR "gaming" AND "parental mediation" OR "digital parenting" AND "gaming disorder" OR "loot box(es)" OR "online safety." Sources were examined for relevance to adolescent populations (ages 10–19), thematically divided into risk, benefit, and mediation categories, and narratively synthesised. This review did not include formal meta-analytic pooling.

Keywords: digital parenting; adolescents; video games; gaming disorder; parental mediation; online safety; loot boxes

1. INTRODUCTION

In addition to how adolescents face numerous other risks in online environments, in addition to the influence of what they see online. By what they see online, there are numerous other risks they confront in online environments. We know that internet misinformation and disinformation impact the lives of adolescents, necessitating the engagement of evaluative processes to construct sense.

While digital environments can create a slew of societal pressures, these conflicts existed long before our contemporary digital age, in which large businesses (e.g., Meta/Facebook, Google/YouTube, TikTok, and X/Twitter) play an increasingly important role in our social, economic, and political life. In addressing these issues, we recognize that boys and young men have historically been particularly vulnerable to social pressures that seek to elevate 'their standing in their all-powerful peer group.'

Video gaming is among the most common pastimes for adolescents throughout the world. Billions of people play video games globally, and the market is worth well over \$175 billion. For today's teens, gaming is rarely a solitary, offline activity; it is a social network entangled with the establishment of friendships, the exploration of identity, and more commercial transactions. This dual quality—part playground, part marketplace—makes gaming in adolescence a site of concern for parents, clinicians, educators, and policymakers.

The emergence of “digital parenting”—an umbrella term for the techniques caregivers use to guide, monitor, and support children's use of technology—is an attempt to adapt time-tested principles of parenting to a world of rapidly evolving technology, impenetrable monetization models, and platforms engineered specifically to optimize engagement. Video games, unlike television, for which parental mediation theory was initially designed, are interactive, typically multiplayer, and increasingly monetized through gambling-like systems. This means

we need to re-examine how parenting frameworks translate to the gaming context and what responsibilities are taken on by parents vs. other stakeholders.

This review answers three leading questions: What are the potential risks of adolescent gaming, and how well are these supported in the empirical literature? What benefits does gaming have, and what are the conditions? And how can parents, together with industry and institutional actors, best negotiate this terrain? In addressing these challenges, the review aspires to go beyond a basic risk-versus-benefit dichotomy to a complex, responsibility-sharing framework.

2. METHODOLOGY

In this study, a literature review was undertaken to identify the online hazards and threats that adolescents experience in the digital age, the coping mechanisms utilized by parents, and the difficulties encountered when implementing these strategies. To collect data for the study, Web of Science (WoS) and PubMed/PMC, ScienceDirect, Wiley Online Library, Frontiers in Psychology, MDPI journals, and the websites of the World Health Organization (WHO), American Psychological Association (APA), Pew Research Center, and Common-Sense Media were used. Google Scholar is also used, as some reports are only available on this website. Keywords utilized in the search were digital parenting, teenagers, video games, gaming disorder, parental mediation, online safety, and loot boxes.

The investigation also comprised two research articles and three research reports available on Google Scholar. In other words, publications on the use of various digital technologies and media, such as digital games and social media, and digital parenting and online environments, as well as papers on parenting approaches used in these contexts, were examined. In total, 34 studies were reviewed. The study included content analysis. The articles were addressed and evaluated based on the following criteria: the online media in which they were used, the parenting practices employed, and age, which was one of the participants' demographic characteristics. In this context, they were thoroughly examined under the following headings: online environments and the risks they create, how parents cope with the risks in these environments, the challenges they face when dealing with these risks, and common digital parenting strategies.

2.1 Inclusion and Exclusion Criteria

Sources were included if they (a) were published in a peer-reviewed journal or by a recognized governmental, clinical, or research organization; (b) pertained to video gaming behavior, risk, benefit, or parental/family mediation specifically among adolescents

(approximately ages 10–19) or provided foundational theory directly applicable to this population; and (c) were published largely within the last fifteen years, with select foundational theoretical works (e.g., parental mediation theory) included regardless of age. Studies with an adult-only sample, studies that investigated other types of screen media (e.g., television-only studies) and were not relevant to gaming, and studies that were published in a language other than English without an accessible translation were excluded.

2.2 Data Extraction and Synthesis

Eligible sources were read in full or in part as relevant and thematically coded into three overarching categories: (1) risks associated with adolescent gaming, (2) benefits associated with adolescent gaming, and (3) parental mediation and digital parenting strategies, with further sub-thematic coding (e.g., gaming disorder, monetization, cyber-safety, cognitive benefit, restrictive mediation, and co-play). The findings were synthesized narratively to identify areas of convergence, contradiction, and gaps requiring more empirical attention. As the study is a narrative, rather than a systematic review, no formal quality-appraisal rating or meta-analytic pooling of effect sizes was conducted.

3. Adolescent Gaming: Scope and Trends

The majority of adolescents play video games on a gaming console or on their smartphones. When questioned about five devices, the majority of adolescents (73%) said they play video games on a gaming console like PlayStation, Switch, or Xbox. Additionally, 70% of adolescents play video games on their smartphones. Fewer, but still significant, percentages of adolescents play video games on each of the following devices: 49% said they play them on a desktop or laptop computer; 33% do so on a tablet. 24% play them on a virtual reality (VR) headset like Oculus, Meta Quest, or PlayStation VR. Many adolescents play video games across numerous devices. Approximately a quarter of adolescents (27%) play on at least four of the five devices surveyed, with nearly half (49%) playing on two or three. Only 8% play video games on a single device. By gender, adolescent boys are more likely than girls to play video games on four of the five devices surveyed, all except tablets. For example, approximately nine out of ten adolescent boys report playing video games on a gaming console, compared to 57% of girls. Tablets An equal number of male and female adolescents use tablets. by an equal number of male and female adolescents. Adolescents who identify as gamers are more likely than those who play video games but aren't gamers to use a gaming console (95% vs. 78%), a desktop or laptop computer (72% vs. 45%), or a

virtual reality (VR) headset (39% vs. 19%). Both groups play them on smartphones and tablets in about equal numbers.

Loot boxes are video game products that may be purchased with real money but have randomized contents. Adolescents play several games with loot boxes. The similarities between loot boxes and gambling have raised concerns that they may contribute to the development of problem gambling in adolescents. Previous studies have found correlations between treasure boxes and problem gambling in adult populations. However, there is no empirical data to support the extent or presence of a link between loot box expenditure and problem gambling in adolescents. Several of these incentives mirrored popular justifications for gambling. Overall, these findings indicate that loot boxes either create problem gambling among older adolescents, enable game producers to profit from adolescents with gambling problems in exchange for large monetary prizes, or both. Possible solutions for regulation and restriction are presented.

4. Theoretical Framework: Parents' Mediation

According to parental mediation theory, parents use a variety of interpersonal communication tactics to mediate and minimize the harmful impacts of media on their children's lives. It also assumes that interpersonal interactions about media between parents and their children contribute to children's socialization into society. In a sense, while the theory arose from an interest in the negative effects of the media, it also sought to investigate the positive ways in which other factors in a young person's environment—namely, the child's parents and their intentional efforts at mediation—might mitigate the negative effects that television was thought to have on young people's cognitive development. Parental mediation is described as the measures that parents employ to maximize the advantages and minimize the dangers (possible negative consequences) of media influence.

5. Gaming Dangers in Adolescence

5.1 Gaming Disorder and Problematic Gaming

According to recent survey data, almost all adolescents play video games in some form or another, on consoles, PCs, and increasingly mobile devices, and gaming is now deeply integrated into peer socialization. Adolescents frequently play games with peers, either physically present or connected online, and multiplayer titles create informal social spaces reminiscent of previous generations' hangouts. This social embeddedness complicates simple restriction-based approaches, as gaming access can be linked to peer association. The current gaming industry's revenue model has also altered significantly. Many popular

games are "free-to-play" and monetize through microtransactions, subscription tiers, and randomized "loot box" purchases, which integrate commercial and (in some cases) gambling-like features directly into games marketed to children. The commercial evolution is critical to understanding contemporary risk.

5.2 Monetization, Loot Boxes, and Gambling-Adjacent Mechanics

Loot boxes are an increasingly popular sort of random microtransaction in videogames. There is some concern about their expansion and the associated hazards, particularly among teens. The true incidence of loot box use among children and adults is unknown, and there is ongoing debate about the nature of its association with compulsive gaming and gambling.

Almost 40% of the world's population plays video games. Over the last five years, the number of gamers has grown at a 6% annual rate, and it is expected to reach 2.7 billion in 2020. The videogame industry's revenue was \$120.1 billion in 2019 and is expected to be about \$159.3 billion in 2020, representing a more than 9% annual rise. In-game purchases are an important source of money and contribute to the success of this industry.

Within a video game, there are various things (typically unique to each video game). While some argue that similar findings can be applied to other media platforms, they allow players to get in-game enhancements and benefits while quickly completing the game's objectives. Graphic features that alter the characters' outward look by changing their aesthetics, clothing, or weapons (known as skins) are also common. These advantages: Players typically obtain these advantages through microtransactions, where they pay a set fee for a specific and identifiable advantage or skin. through microtransactions (in which a player pays a set fee for a specific and identifiable advantage or skin). Loot boxes, often known as crates, gachas, cases, or chests, are one sort of microtransaction in which a randomly selected virtual object is purchased. Loot boxes can be purchased with actual or virtual in-game currency, with the most sought-after items arriving less frequently.

5.3 Exposure to graphic or age-inappropriate content

The link between violent video game content and violence in adolescents is still debated. Whereas earlier work (e.g., Anderson & Bushman's General Aggression Model) posited a strong causal link between violent media consumption and aggressive cognition, more recent longitudinal and meta-analytic work has found weaker or null effects when controlling for family background and other confounds. The scientific consensus is more accurately characterized as cautious: violent content may be one contributing factor among many for a

subset of vulnerable teenagers, rather than a uniform causative risk, and the effect sizes described in the literature are often tiny.

5.4 Online predatory contact, grooming, and cyber-bullying

Games with multiplayer and chat features allow adolescents to communicate with unknown adults or classmates, raising the risk of grooming, harassment, and cyberbullying via game-based communication channels. Protection guidance in this area focuses on identifying behavioral patterns rather than specific platform features: for example, attempting to isolate a young person from trusted adults, increasing the level of secrecy, or moving communication into less-supervised spaces are all consistent warning signs that parents and platforms should be aware of. The issues here are relational and behavioral, not merely technical; thus, limiting or filtering actions is necessary but insufficient. Open communication is frequently cited in research as a crucial protective factor.

5.5 Privacy, Data Collection, and Commercial Exploitation

Games are increasingly gathering behavioral, location, and biometric data on underage users, generally via terms of service that adolescents (and many parents) do not understand. While some regulatory frameworks, such as the US Children's Online Privacy Protection Act (COPPA) and the EU's General Data Protection Regulation (GDPR), impose limitations, enforcement gaps and platform design choices mean that adolescent data privacy remains a concern, necessitating both parental awareness and industry accountability.

5.6 Sleep, Physical Health, and Displacement Effects

Sleep: Researchers recognize that screen exposure has a deleterious impact on sleep. Findings on media consumption have been inconsistent: according to a review study, 32 of 42 studies that investigated media viewing and sleep outcomes revealed substantial unfavorable relationships. In contrast, Bartel and colleagues discovered that watching television did not pose a substantial risk to sleep. The majority of the research on this topic focuses on regular viewing volume. To our knowledge, this is the first study to look into the relationship between excessive viewing and sleep.

Existing research has shown that playing video games increases activity in the central and autonomic nervous systems, which delays sleep onset. A recent study found that cognitive pre-sleep arousal mediated the link between social media use and sleep onset latency. Although some argue that similar findings apply to other media platforms, limited data supports this idea. that similar findings can be applied to other media platforms, data supporting this idea is limited.

Excessive gaming, or gaming at inappropriate times, has been linked to later sleep onset, shorter sleep duration, and downstream effects on mood and academic functioning, particularly when gaming replaces sleep or physical activity (Exelmans & Van den Bulck, 2017, as cited in secondary literature on adolescent screen use). However, the relationship between screen/gaming time and teenage well-being is more complicated than the first alarmist framing implied. Large-scale analyses conducted by the Oxford Internet Institute found little evidence for significant negative associations between digital-screen engagement and adolescent well-being at the population level, with critics pointing out that the same data can yield conflicting results depending on analytic choices (as discussed in Built In, 2024). This suggests that patterns and contexts of use, rather than time alone, may provide more information than plain "screen time" data.

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5.7 Family Stress, Escapism, and the 'Forbidden Fruit' Phenomenon

Teens' increased reliance on gaming as an escapist coping technique has been connected to family conflict, stressors in single-parent households, and unstable parental attachment. Importantly, overly restrictive parental responses might backfire. Restrictive mediation without dialogue has been linked to a 'forbidden fruit' effect, in which forbidden media becomes more appealing rather than less, and 'boomerang effects,' in which adolescent resistance to parental control undermines the protective goal.

6. Digital Parenting – Roles and Responsibilities

This section utilizes the mediation framework set out in Section 4 to synthesize research on the relative effectiveness of specific parenting styles.

6.1 Constraining Mediation

Restrictive mediation, such as time limits, content restrictions, and prohibition, can minimise raw exposure and has been linked to less escapist gaming in some studies. Its protection is not standard, and if enforced strictly or without explanation, it risks the forbidden fruit and boomerang effects of Section 5.7, particularly as teenagers age and assert their autonomy.

6.2 Active or Instructive Mediation

When it comes to achieving positive results, active mediation—discussing game content, monetization tactics, expected online behavior, and the reasons for family restrictions—outperforms limiting. This is congruent with the proposal for "deconstructive mediation," in which parents teach adolescents to critically examine persuasive game design (e.g., loot box dynamics, engagement-maximizing notification systems) rather than just banning access.

6.3 Co-Play and Participatory Mediation

Video games are one sort of media that is gaining popularity among adolescents. According to recent Kaiser Family Foundation research, adolescents reported spending roughly an hour per day playing video games, a figure that has nearly tripled in the last decade. On average, boys reported playing more video games than girls. Although many adolescents reported playing age-appropriate, generally violent-free games, about half of the sample (and 70% of boy gamers) admitted to occasionally playing violent and controversial games (e.g., Grand Theft Auto). This supports a growing body of data indicating that boys play age-inappropriate video games more frequently and intensely than girls. Co-play with parents is linked to better parent-adolescent relationships and more favorable behavioral outcomes, especially for females. Co-play also offers parents a direct and low-friction option to examine game content, in-game social interactions, and monetization cues while building informal relationships and monitoring.

6.4 Technical and Follow-up Mediation

Platforms' parental control software, spending limitations, privacy settings, and communication-monitoring tools serve as a technical supplement to interpersonal mediation, which is especially important in the context of loot box and microtransaction danger. The American Academy of Pediatrics' Family Media Plan and "5 Cs" (Content, Context, Calm, Crowding out, and Communication) framework are frequently cited as evidence-based frameworks that combine technical and conversational approaches.

6.5 Balance between Autonomy and Control

Across mediation modalities, a consistency in the literature is that mediation effectiveness is less dependent on strictness and more on developmental fit and the quality of the relationship. Mediation that promotes adolescent autonomy while maintaining open communication is more protective and long-lasting than mediation based solely on surveillance or prohibition.

7. The challenges of effective digital parenting

7.1 The Digital Generation Divide

Many parents who did not grow up with networked, monetized gaming may be unaware of genre conventions, in-game economy, or chat/voice capabilities, restricting their ability to appropriately assess risk or engage in believable instructional mediation.

7.2 Socioeconomic and Family Structure Variables

Family stressors, single parental responsibility, and limited parental time or resources are associated with reduced active mediation capacity and increased teenage reliance on gaming for escape, suggesting that digital parenting capacity is not fairly distributed across socioeconomic situations.

7.3 Industry Design and “Dark Patterns”

Within a videogame, there are various things (typically unique to each videogame) that allow players to obtain in-game enhancements and benefits while quickly completing the game's objectives. Graphic features that alter the characters' outward look by changing their aesthetics, clothing, or weapons (known as skins) are also common. These advantages: Players often buy these advantages through microtransactions, where they pay a specific fee for a known benefit or skin. through microtransactions (i.e., a player pays a certain fee for a specific and known benefit or skin). Games are frequently designed using persuasive design techniques—variable-ratio reward schedules, loss-aversion cues, and social pressure mechanics—that are difficult for any parent to resist with just house rules. This asymmetry between commercially sophisticated design and household-level mediation is a recurring theme in the loot box and monetization literature, and it serves as the foundation for the argument that parental responsibility cannot be considered in isolation from industry and regulatory responsibility.

8. Shared Responsibility Outside the Family

Adolescent gaming safety is increasingly being viewed as a collective duty rather than merely that of parents, according to the research. Some jurisdictions have begun to regulate loot box mechanics and require probability disclosures; the games industry has implemented parental

control suites and age-rating systems (e.g., ESRB and PEGI); and schools have begun to integrate digital literacy, including critical evaluation of persuasive game design, into curricula. However, the pace of legislative and institutional response has historically lagged behind business innovation, leaving parents as the de facto first line of defense, despite information and resource disparities with game makers. The article proposes a shared-responsibility structure that distributes accountability across families, developers, platforms, schools, and regulators, which is more feasible and successful than the family-only risk mitigation strategy.

9. Discussion

The studied material leads to three integrative findings. First, adolescent gaming risk is not monolithic: gaming disorder, monetization-related harm, content exposure, social/predatory risk, and health displacement effects all have distinct mechanisms, risk factors, and mitigation strategies and should not be addressed through a single undifferentiated “screen time” policy. Second, it is the quality of mediation that matters more than the quantity of mediation: communicative, autonomy-supportive techniques are consistently more protective than blanket limitation, and inflexible restriction can be counterproductive. Third, the commercialization of gaming, especially monetization adjacent to gambling, has outpaced both parental awareness and regulatory response, meaning that even well-executed individual-level parenting strategies cannot fully substitute for industry and policy accountability.

These findings suggest that interventions targeted at parents should focus on digital literacy and communication skills rather than simply limiting the technical aspects, while advocacy and policy efforts should target the structural, industry-level drivers of risk, particularly loot box and microtransaction design, that are beyond the scope of household-level mediation.

10. Review Limitation

Because the review is a narrative rather than a systematic review, formal quality assessment tools (such as PRISMA and GRADE) were not used, and no pooled effect sizes are presented. The source selection process was systematic, but there was still some interpretive discretion involved. Some of the conclusions (particularly the prevalence estimates) may alter as the research matures, given the rapid advancement of game technology and monetization schemes. Findings in culturally specific samples (e.g., China, Spain, Italy, Japan) may not be universally applicable across all cultural and regulatory situations.

11. Conclusion and Suggestion

Adolescent gaming is a complex activity that involves both potential risks and benefits. It is a developmentally meaningful, financially integrated practice that offers true cognitive and social benefits while also posing recognized concerns, the most notable of which are problematic gaming, gambling-related monetization, and, for a subset of teenagers, social and predatory harm. Effective digital parenting is defined by quality communication, autonomous support, and parental knowledge of the individual games, features, and monetization mechanics that teenagers experience, rather than stringent household restrictions.

The evidence reviewed supports the recommendations that (1) parents should prefer active, instructive, and co-play mediation approaches over restriction-only approaches, particularly as adolescents age; (2) families should treat loot boxes and microtransactions as a separate risk area that deserves explicit discussion and, where possible, technical controls on spending; and (3) schools should include critical digital and commercial literacies, including persuasive game design.

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