

Social Media and Its Impact on Children's Behavioral Development: A Miscellaneous Discussion

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Abstract

Social media has become an integral part of children's lives, influencing how they communicate, learn, and perceive the world. This paper explores the impact of social media on children's behavioural development, highlighting both positive and negative outcomes. While social media can facilitate social connections, provide access to educational resources, and encourage prosocial behaviour, it also poses risks such as mental health issues, sleep disturbances, and body image concerns. The COVID-19 pandemic further accelerated social media use among children, raising concerns about its potential negative effects. Specific groups, such as children with pre-existing mental health conditions or from low socioeconomic backgrounds, may be particularly vulnerable to the adverse impacts of social media. Strategies for mitigating these risks include parental monitoring, setting boundaries, and promoting alternative activities. The paper emphasizes the importance of balanced, responsible social media use and the need for ongoing research to understand its long-term effects on children's development.

Introduction

Social media has become an omnipresent force in the lives of children and adolescents, transforming how they communicate, learn, and perceive the world around them (McDool et al., 2016). While offering numerous opportunities for connection and access to information, its pervasive influence also raises concerns about potential risks to their behavioural development (Bozzola et al., 2022). This document aims to provide a comprehensive overview of the impact of social media on children's behavioural development, drawing upon available research and expert opinions to highlight key findings, limitations, and areas for future investigation. Although numerous studies have examined both the positive and negative outcomes of social media use—ranging from enhanced peer interaction to increased anxiety and sleep disruption—key knowledge gaps remain. Much of the existing research is concentrated in Western

contexts, with limited cross-cultural or longitudinal perspectives (Nagata, 2020; Livingstone & Helsper, 2008). Furthermore, specific mechanisms through which social media platforms shape behaviour—such as algorithmic reinforcement, peer validation, or emotional contagion—are still poorly understood (Girela-Serrano et al., 2024). Vulnerable populations, including children with neurodevelopmental conditions or those from low socioeconomic backgrounds, are frequently underrepresented in empirical studies (Kuo et al., 2019; Rideout & Robb, 2020), despite evidence suggesting they may experience disproportionate impacts. In addition, few practical, evidence-based interventions exist to help caregivers manage children's digital media use effectively (Gentile et al., 2014). By synthesizing current literature and identifying these critical gaps, this paper contributes to a more nuanced understanding

of how social media interacts with developmental, cultural, and contextual factors in shaping child behaviour. It also underscores the urgent need for inclusive, theory-driven, and actionable research that can inform guidelines, policies, and interventions tailored to diverse child populations.

The Rise of Social Media and Its Integration into Children's Lives

The past decade has witnessed a dramatic shift in how children engage with the world, largely due to the advent of social media and online social networking (McDool et al., 2016). From a young age, children are increasingly exposed to digital devices and platforms, making screen time a ubiquitous part of their daily routines (Panjeti-Madan et al., 2023). This early and consistent exposure has led to concerns among policymakers and bodies responsible for safeguarding children, prompting research into the effects of digital social networking on their well-being (McDool et al., 2016). The COVID-19 pandemic further accelerated the integration of social media into children's lives. Lockdowns and social distancing measures led to increased reliance on digital devices

for communication, education, and entertainment (Bozzola et al., 2022; Drouin et al., 2020) found that parents reported increased technology and social media use for both themselves and their children, especially teenagers, during the initial stages of the pandemic. This surge in usage underscores the need to understand both the potential benefits and risks associated with social media consumption among children.

Positive Impacts of Social Media on Children's Behavioural Development

Despite the potential risks, social media can offer several positive benefits for children's behavioural development.

Enhanced Social Connections

Social media platforms can facilitate and maintain connections with peers, especially during times of physical distancing (Nagata, 2020). For children, social play and connection are vital for communicating and coping during challenging times such as a pandemic (Nagata, 2020), as demonstrated in Figure 1.

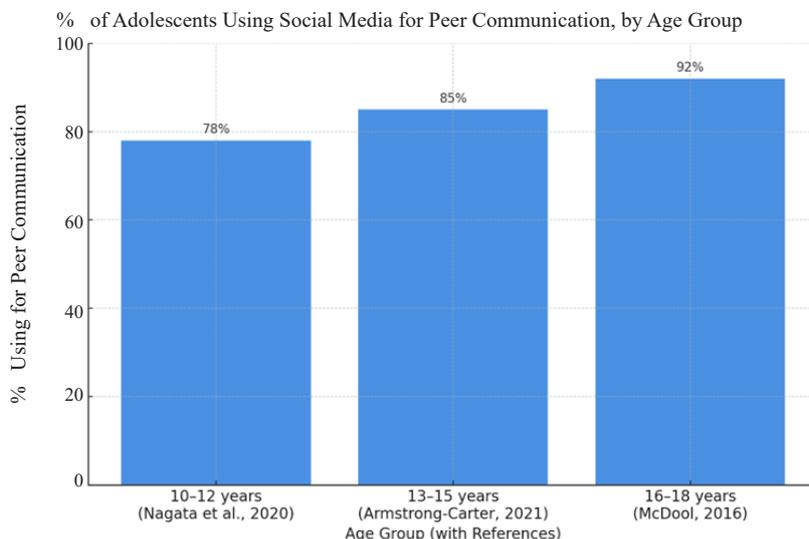


Figure 1. Percentage of adolescents using social media for peer communication, by age group, based on previous studies (Nagata et al., 2020; Armstrong-Carter, & Telzer, 2021; McDool et al., 2016).

Nagata et al. (2020) noted that social media is an ideal platform for staying connected with friends and peers, particularly when stay-at-home orders are in effect.

Access to Information and Education

Social media provides children with access to a wealth of information and educational resources (Lupton, 2021). During the COVID-19 pandemic,

many schools and universities transitioned to virtual curricula, necessitating students' use of screens for educational purposes (Nagata, 2020). This shift highlights the potential of social media and digital platforms to support learning and academic development, as long as it is structured and monitored appropriately (Nagata, 2020).

Underscoring the potential of structured online environments to enhance academic development. A randomized controlled trial demonstrated by Li et al. (2021) that children who received health education via WeChat showed a 15% reduction in myopia incidence—an example of effective, culturally relevant digital health education (see Table 1).

Table 1: Positive Impacts and Interventions

Study	Sample Size	Population	Key Finding	Statistical Result
Armstrong-Carter&Telzer (2021)	1500+	12-18 years	prosocial behavior via digital platforms	correlation ($r=0.32$, $p=0.001$)
Li et al.(2021)	1118	7-9 years	wechat education reduced myopia incidence	RCT:15%reduction($p<0.05$)
Gentile et al.(2014)	1300	6-12 years	Parental monitoring improved sleep and school outcomes	Regression ($\beta=0.28$, $p<0.01$)

Prosocial Behaviour and Altruism

Exposure to certain types of media content can promote prosocial behaviour, increasing children's altruism, cooperation, and tolerance for others (Wilson, 2008). Wilson (2008) suggests that educational programs and situation comedies targeted at youth can have prosocial effects. Armstrong-Carter, and Telzer (2021) also highlight the evolving opportunities for prosocial development in the digital age, particularly concerning current events and social/political activism.

Identity Formation and Self-Expression

Social media can provide children and adolescents with platforms for self-expression and identity formation (Lupton, 2021). These platforms allow them to explore their interests, connect with like-minded individuals, and develop a sense of belonging (Lupton, 2021). Lupton (2021) notes that young people appreciate the opportunity to learn more about their bodies and states, and how to improve their physical fitness through online resources.

Negative Impacts of Social Media on Children's Behavioural Development

Despite the potential benefits, excessive or inappropriate social media use can have detrimental effects on children's behavioural development.

Mental Health Issues

Several studies have linked excessive social media use to increased rates of anxiety, depression, and other mental health issues among children and adolescents (Bozzola et al., 2022). A scoping review by Bozzola et al. (2022) identified depression and psychological problems as the most reported risks associated with social media use. Nagata (2020) highlights that articles from the Health Behaviour in School-aged Children (HBSC) 2017-2018 survey covered mental well-being, among other aspects of adolescent health.

Sleep Disturbances

Increased screen time, particularly before bedtime, can disrupt sleep patterns and reduce sleep quality (Nagata, 2020). Nagata et al. (2020) recommend avoiding screen use at least one hour before bedtime to mitigate disturbances and improve sleep quality, which is essential for children's cognitive and emotional functioning.

Body Image Issues and Eating Disorders

Exposure to unrealistic or idealized body images on social media can contribute to body image dissatisfaction and disordered eating behaviours (Fernández-Aranda et al., 2020). Fernando FernandezAranda et al. (2020) suggest that increased time spent using social media can exert a toxic influence, promoting objectification and the thin ideal, which can be a precipitating factor for the development

of eating disorders in vulnerable individuals.

Cyberbullying and Online Harassment

Social media platforms can be breeding grounds for cyberbullying and online harassment, which can have severe psychological and emotional consequences for children (Nagata, 2020). Nagata (2020) explores cyber-bullying, finding that frequent online contact with strangers independently predicts cyber-bullying.

Addiction and Problematic Use

Some children may develop an addiction to social media, leading to excessive use and neglect of other important activities (Chen et al., 2021). Chen et al. (2021) found that increased smartphone and social media use among schoolchildren during COVID-19 lockdowns was associated with greater psychological distress. Hawi et al. (2019) developed the Digital Addiction Scale for Children (DASC) to identify problematic digital device use and addiction risks among children aged 9-12 years.

Reduced Academic Performance

Excessive social media use has been linked to reduced academic performance and cognitive development (Dempsey et al., 2019). Dempsey et al. (2019) found that children who owned a mobile phone by the age of nine performed less well in reading and math between the ages of 9 and 13, suggesting educational costs arising from early mobile phone use.

Aggressive Behaviour

Exposure to violent content on social media and in video games can contribute to aggressive behaviour in children (Wilson, 2008). Wilson (2008) notes strong evidence shows violent television programming contributes to children's aggressive behaviour, and a growing body of work indicates that playing violent video games can have the same harmful effect.

A summary of key findings from representative studies on the negative behavioural outcomes associated with social media use in children is provided in Table 2 below.

Table 2: Negative Impacts of Social Media on Children’s Behavioural Development

Study	Sample Size	Population	Key Finding	Statistical Result
Bozzola et al. (2022)	2000	10-17 years	social media linked to depression symptoms	30-40% reported psychological effects
Dempsey et al. (2019)	1200	9-13 years	early mobile phone use reduced academic performance	Significant (p<0.05)
Chen et al. (2021)	1021	6-12 years	problematic use >> psychological distress	structural equation modelling (=0.45)
Hawi et al. (2019).	600+	9-12 years	Developed Digital Addiction scale for children	Validated (Cronbach’s a=0.89)
Fernández-Aranda et al. (2020)	500+	adolescents	social media eating disorder risk	odds ratio (OR=2.1, p<0.01)

Specific Vulnerabilities and Considerations

Certain groups of children may be more vulnerable to the negative impacts of social media.

Children with Pre-existing Mental Health Conditions

Children with pre-existing mental health conditions, such as anxiety or depression, may be more susceptible to the adverse effects of social media (Teresa, 1997). Teresa (1997) showed that children with disruptive behaviour disorders process antisocial messages in

violent movies differently from children without a psychiatric disorder, suggesting that an unabated diet of antisocial media could have harmful effects on children with a psychiatric illness.

Children from Low Socioeconomic Backgrounds

Children from low socioeconomic backgrounds may have limited access to resources and support systems, making them more vulnerable to the negative impacts of social media (Yoshikawa et al., 2020). Yoshikawa et al. (2020) highlight that socioeconomic inequalities

exacerbate the situation for millions of families, with financial flexibility cushioning and protecting one from the worst effects.

Children with Neurodevelopmental Disabilities

Littman (2018) found that many adolescents and young adults (AYA) reporting a rapid onset of gender dysphoria had been diagnosed with at least one mental health disorder or neurodevelopmental disability. Such pre-existing conditions may amplify the impact of social media on their mental and behavioural health.

Strategies for Mitigating Negative Impacts and Promoting Positive Use

Several strategies can help mitigate the negative impacts of social media and promote its positive use among children.

Parental Monitoring and Mediation

Parental monitoring of children's media use has protective effects on academic, social, and physical outcomes (Gentile, 2014). Gentile et al. (2014) found that parental monitoring influences children's sleep, school performance, and prosocial and aggressive behaviours, mediated through total screen time and exposure to media violence.

Setting Boundaries and Limiting Screen Time

Establishing clear boundaries and limiting screen time can help prevent excessive social media use and its associated negative effects (Muppalla et al., 2023). Muppalla et al. (2023) suggest that setting boundaries, utilizing parental controls, and demonstrating good screen behavior are all techniques parents may use to manage children's screen usage. Panjeti-Madan et al. (2023). advise limiting screen time to zero minutes for children aged 0-2 years, less than 60 minutes for those aged 3-5 years, and 60 minutes for those aged 6-8 years.

Encouraging Alternative Activities

Encouraging children to engage in alternative activities, such as outdoor play, sports, and hobbies, can reduce their reliance on social media and promote overall well-being (Muppalla et al., 2023). By increasing knowledge and encouraging alternative activities that stimulate development, we can reduce the possible negative impacts of excessive screen time and promote children's healthy development and

well-being (Muppalla et al., 2023).

Promoting Media Literacy

Teaching children to critically evaluate media content and understand the potential biases and influences can help them make informed choices about their social media use (Kunkel, 2010). Kunkel (2010) notes that children must acquire the ability to discriminate commercial from non-commercial content and attribute persuasive intent to advertising to achieve mature comprehension of advertising messages.

Open Communication and Dialogue

Creating an open and supportive environment where children feel comfortable discussing their online experiences can help identify and address potential issues early on. Stein Dalton et al. emphasize the importance of clear, simple, and concrete communication, taking into account children's understanding and providing reassurance to manage their concerns.

Utilizing Social Media for Health Promotion

Social media can be utilized by public health officials for collecting, collating, and dispersing accurate crisis-related information (Drouin et al., 2020). Drouin et al. (2020) advocate for the utilization of social media by public health officials for collecting, collating, and dispersing accurate crisis-related information.

The Impact of COVID-19 on Children's Social Media Use and Mental Health

The COVID-19 pandemic and associated lockdowns significantly impacted children's social media use and mental health (Yoshikawa et al., 2020). School closures and social distancing measures led to increased screen time and reliance on digital platforms for education, communication, and entertainment (Nagata, 2020).

Increased Screen Time and Media Usage

Nagata et al. (2020) noted that national school closures, lockdown policies, and social-distancing recommendations might translate to higher overall screen time among children and adolescents. Kim et al. (2021) found that during school closures, children spent less time in physical activities and more time using media, with YouTube being a highly used content platform.

Mental Health Challenges

Studies have reported adverse mental health symptoms and behavioural changes among children and adolescents during school closures and social lockdowns (Viner et al., 2022). Viner et al. (2022) in their narrative synthesis of reports from the first wave of the COVID-19 pandemic, noted that studies of short-term school closures as part of social lockdown measures reported adverse mental health symptoms and health behaviours among children and adolescents. Ng and Ng, (2022) found that children affected by the pandemic experienced internalizing and externalizing behaviours, with worsened outcomes reflecting socioeconomic inequalities.

Parental Stress and Family Dynamics

Parental stress and changes in family dynamics during the pandemic also played a significant role in children's mental health and social media use (Kim et al., 2021). Kim et al. (2021) found that parental subjective stress was highly associated with parental depression, children's sleep problems, tablet time, and behaviour problems. Evans et al. (2020) demonstrated the breadth of family experiences during COVID-19, with many families reporting mental health difficulties and strained relationships, while others found opportunities for strengthening relationships and developing positive characteristics.

The Role of Digital Interventions and Support Systems

Digital behaviour change interventions have shown promise in supporting children with chronic health conditions and addressing mental health challenges (Brigden et al., 2020). Brigden et al. (2020) noted that digital interventions for younger children with anxiety and obesity had the greatest promise, particularly those using gaming features, therapist support, and parental involvement.

Telehealth and Online Counselling

The pandemic accelerated the use of telehealth and online counselling services, providing children and families with access to mental health support remotely (Nagata, 2020). Nagata et al. (2020) noted that mental health resources and services are being offered through applications, and counselling and therapy sessions are being conducted exclusively via telehealth.

School-Based Interventions

School-based family health education programs, delivered via social media, have shown some effectiveness in promoting healthy behaviours and raising awareness among parents (Li et al., 2021). Qian Li et al. (2021) found that school-based weekly family health education via WeChat resulted in a small decrease in the 2-year cumulative incidence rate of myopia among children.

Online Parenting Programs

Online parenting programs can provide benefits for parents who may not be able to access in-person resources, increasing positive parenting and reducing negative parent-child interactions (Spencer et al., 2019). Spencer et al. (2019) found that online parenting programs had the strongest effects on increasing positive parenting and parents' encouragement, as well as reducing negative parent-child interactions and child problem behaviours.

Social Media as a Tool for Public and Youth Mental Health

Social media platforms, such as TikTok, are increasingly being used for public and youth mental health initiatives (McCashin & Murphy, 2023). McCashin and Murphy (2023) found that TikTok has been utilized for various purposes, including COVID-19 information, dermatology, eating disorders, and cancer awareness, but noted the absence of high-quality mixed-methodological evaluations in health.

Opportunities and Challenges

Social media offers unique opportunities for practitioners to connect with younger audiences and disseminate health-related information (McCashin & Murphy, 2023). However, there are distinct differences in how institutional accounts and personal creators use the platforms and engage with their audiences (McCashin & Murphy, 2023). The challenge lies in leveraging these platforms effectively while addressing potential risks and misinformation (Nagata, 2020).

The Importance of Family Influences and Parental Mediation

Family influences, parenting styles, and parental mediation play a crucial role in shaping children's

social media use and its impact on their behaviour (Livingstone & Helsper, 2008). Livingstone and E. Helsper (2008) examine parental regulation of children and teenagers' online activities, finding that parents implement a range of strategies, favouring active co-use and interaction rules over technical restrictions.

Parental Mediation Strategies

Parental mediation strategies can be categorized into active mediation, restrictive mediation, and co-using (Livingstone & Helsper, 2008). Active mediation involves talking about media content, restrictive mediation involves setting rules that restrict use, and co-using signifies the parent remains present while the child is engaged with the medium (Livingstone & Helsper, 2008).

Effectiveness of Parental Mediation

The effectiveness of parental mediation varies, with some strategies being more effective than others in reducing online risks and promoting positive outcomes (Livingstone & Helsper, 2008). Parental restriction of online peer-to-peer interactions was associated with reduced risk, but other mediation strategies, including active co-use, were not necessarily effective (Livingstone & Helsper, 2008).

Future Research Directions

Further research is needed to address gaps in our understanding of the impact of social media on children's behavioural development.

Longitudinal Studies

Longitudinal studies are needed to examine the long-term effects of social media use on children's cognitive, social, and emotional development (Girela-Serrano et al., 2024). Girela-Serrano et al. (2024) highlight the need for more high-quality longitudinal and mechanistic research to clarify the role of mobile phones and wireless devices on adolescents' mental health trajectories.

Qualitative Research

Qualitative research can provide valuable insights into children's experiences with social media and the nuances of its impact on their lives (Evans et al., 2020). Evans et al. (2020) used a qualitative approach to understand the impact of COVID-19 on family life, demonstrating the breadth of responses and the

importance of considering both positive and negative experiences.

Cross-Cultural Studies

Cross-cultural studies can help identify cultural variations in social media use and its effects on children (Nagata, 2020). Nagata (2020) highlights that the Health Behaviour in School-aged Children (HBSC) survey includes data from 45 countries across Europe and North America, allowing for comparisons and trend analyses.

Intervention Studies

Intervention studies are needed to evaluate the effectiveness of different strategies for mitigating the negative impacts of social media and promoting its positive use (Li et al., 2021). Li et al. (2021) conducted a randomized clinical trial to evaluate the effects of school-based family health education via WeChat on children's myopia and parents' awareness.

Conclusion

Social media presents both opportunities and challenges for children's behavioural development. This dual nature aligns with Bandura's Social Learning Theory (Bandura, 1977), which suggests that children learn not only through direct experience but also via observation and modeling, particularly from peers and influencers online. The findings of this review support prior studies (e.g., Armstrong-Carter, & Telzer, 2021; Bozzola et al., 2022) indicating that social media can facilitate prosocial behaviour and identity exploration, especially when content is developmentally appropriate and socially affirming. However, consistent with the bioecological model of Bronfenbrenner (1979), the impact of social media is not uniform but shaped by multiple interacting systems—including individual factors (e.g., self-regulation, neurodiversity), microsystems (e.g., family media practices), and ecosystems (e.g., socioeconomic status). This review highlights that children from low-SES families or with pre-existing mental health conditions may face heightened risks, confirming findings from Rideout & Robb (2020) and Kuo et al. (2019). Moreover, the specific design features of platforms—such as algorithm-driven feeds and constant notifications—appear to reinforce

attentional fragmentation and social comparison, echoing concerns raised by Girela-Serrano et al., (2024). Yet very few studies provide concrete, theory-based interventions to mitigate these effects. To address these challenges, this review supports a multi-level prevention approach. Strategies such as parental co-use, digital literacy education, and family media plans are in line with recommendations from Gentile et al. (2014) and Livingstone and Helsper (2008), yet they remain underutilized in practice. Thus, future research should prioritize longitudinal and culturally sensitive studies, grounded in developmental theory, to guide the design of evidence-based supports. By synthesizing diverse findings through established theoretical lenses, this review contributes a structured understanding of how social media interacts with the child's environment and where targeted interventions are most needed.

Recommendations

1. Implement "Tech-Free Zones/Times"

- Designate device-free dinner times and bedrooms based on findings that screen use before bed disrupts sleep (Nagata, 2020)
- Use apps like Screen Time (iOS) or Digital Wellbeing (Android) to enforce limits

Practices Implantation

1. Longitudinal studies with large sample sizes and controlled variables are recommended to confirm causality between social media use and mental health outcomes.

Limitation

This paper does not include primary data collection or statistical analysis, and therefore, its conclusions are based solely on secondary sources and theoretical perspectives.

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