Theoretical Framework of Parental Media Mediation in Early Childhood

Esra MERDİN¹

Abstract: This paper explores the concept of parental media mediation in early childhood, emphasizing its role in shaping children's interactions with digital media. As digital media becomes increasingly integrated into children's lives, effective parental mediation is crucial for fostering positive cognitive, social, and emotional outcomes. This study examines parental mediation through various theoretical lenses, including Vygotsky's sociocultural development theory, Bandura's social learning theory, Bronfenbrenner's ecological systems theory, and the technology subsystem theory. Each theory provides unique insights into how parents could guide their children's digital media use effectively. The insights highlight that parental involvement is not merely about setting rules but involves active engagement, role modeling, and creating a media-rich environment that promotes safe and beneficial media consumption. The interplay between these theoretical perspectives underscores the multifaceted nature of parental mediation and its essential role in helping children to develop a balanced relationship with technology in the digital age.

Introduction

Digital media has become an integral part of children's daily lives, effectively becoming a member of the nuclear family (Schmidt, 2024). Parental mediation of media plays a crucial role in helping children to proper comprehend media messages and develop a healthy relationship with digital media. The concept of parental mediation emerged during a period when digital media usage was rapidly spreading, via the goal of regulating and guiding children's interactions with media. In the literature, parental mediation is described as "all practices by which parents shape and regulate their children's media use" (Nikken & Opree, 2018). Similarly, Wang, Lwin, Cayabyab, and You (2023) define parental mediation as the behaviors and strategies used by parents to enhance the positive effects of media on children while reducing its negative impacts.

The purpose of this inquiry is to understand how parental mediation influences children's interactions with digital media, and how different mediation strategies can support children's cognitive, emotional, and social development. The significance of this work lies in its potential to inform parents, educators, and policymakers about the most effective practices for fostering a balanced and healthy media environment for children. By exploring this topic, the inquiry aims to contribute to the existing literature and provide insights that could maintain better parental practices in the digital age.

In the early years of its emergence, researchers often debated whether parental mediation truly made a difference in children's lives (Collier et al., 2016). Subsequent studies, however, have not only confirmed the impact of mediation but also explored its effects on children's cognitive and emotional processes (Rasmussen, White, King, Holiday, & Densley, 2016). These studies indicate that all types of parental mediation could alter children's perceptions of media and its content (Şen, Yılmaz, & Karadeniz, 2020; Küçükturan, 2017). These altered perceptions, in turn, influence children's attitudes and behaviors (Collier

¹Başkent University, Faculty of Education, Department of Early Childhood Education, Ankara, Türkiye, e-mail:eozbey@baskent.edu.tr, ORCID: 0000-0001-5096-0884

et al., 2016).

Parental mediation is of great importance in guiding children's interactions with digital content. By employing appropriate mediation strategies, parents could manage their children's media use in a more conscious and effective manner. Understanding how effective parental mediation is in shaping children's media interactions, and the role of parental guidance in this process, require a solid theoretical foundation. In this context, sociocultural development theory, social learning theory, ecological systems theory, and the technology subsystem theory provide with valuable insights into understanding various aspects of parental mediation and fostering a deeper discussion on this concept.

These theoretical frameworks collectively enhance a basis for analyzing the impact of parental mediation on children's development. Sociocultural development theory emphasizes the importance of social context and guided interactions while social learning theory highlights the role of observational learning. Ecological systems theory provides a broader perspective on the various environmental influences on children, and the technology subsystem theory focuses on the unique challenges of digital media environments. Along with the mentioned reasons, these frameworks support a comprehensive understanding of how parents can effectively mediate children's digital media use.

The findings highlight that parental involvement is not merely about setting rules but involves active engagement, role modeling, and creating a media-rich environment that promotes safe and beneficial media consumption. The interplay between these theoretical perspectives underscores the multifaceted nature of parental mediation and its essential role in helping children develop a balanced relationship with technology in the digital age.

Method

This study employs a literature review methodology to explain the concept of parental media mediation through the integration of four major theories: sociocultural development theory, social learning theory, ecological systems theory, and technology subsystem theory. The goal of this review is to synthesize and analyze existing theoretical and empirical studies to provide a comprehensive understanding of how these theories intersect to explain parental mediation in the digital age.

Parental Mediation in the Context of Sociocultural Development Theory

Vygotsky's sociocultural development theory suggests that a child's cognitive development is significantly influenced by the interactions they have with their environment and the social contexts in which they are situated (Ergün & Özsüer, 2008). According to this theory, children interact with cultural elements and learn from more experienced individuals to develop their cognitive skills. Vygotsky emphasizes that children can develop higher-order thinking skills not only through their own efforts but also with the support they receive from their social environment (Bodrova & Leong, 2010). In this context, the concept of the Zone of Proximal Development (ZPD) emerges as a key idea. The ZPD represents the difference between what a child couldachieve independently and what they can achieve with the guidance of a more competent individual. This approach posits that adult support plays an accelerating role in the child's cognitive development (Bodrova & Leong, 2010).

According to Vygotsky's theory, children do not rely solely on individual experiences while learning, rather, they develop their cognitive abilities within a social and cultural context. At this point, guidance from more experienced individuals, such as parents, teachers, or peers, is crucial for the child's cognitive development (Rogoff, 2003). The sociocultural development theory provides a robust framework for explaining how parents can make a difference in their children's cognitive and social development through digital media mediation. The guidance provided by parents through digital media mediation can enhance children's ability to use digital tools effectively and meaningfully, thereby increasing their cognitive capacities. Specifically, children can develop higher-level thinking skills with the help of their parents when interpreting the content they encounter in the digital world (Beck & Wood, 1993). Given the complexity and potential risks of media content, it is crucial for parents to assume a guiding role in this process

(Dulkadir Yaman, Karademir, & Yaman, 2023). By monitoring their children's digital media use and providing effective mediation, parents mighthelp their children to derive the maximum benefit from these contents while also protecting them from negative influences.

ln Vygotsky's sociocultural development theory, through the emphasis of the importance of social interactions in children's cognitive development, it couldbe interpreted that parental guidance plays a critical role, especially in the digital media era. The process of making sense of media content and benefiting from it is a process that occurs with adult guidance (Neumann, 2015). This guidance is thought to support children's cognitive development and accelerate the development of complex thinking skills. This theory helps us to grasp how parents can guide their children through digital media, while also providing a foundation for understanding how this process creates a social learning environment.

Parental Mediation in the Context of Social Learning Theory

Bandura's social learning theory provides a critical framework for understanding how children in early childhood learn through observing individuals in their environment. According to this theory, learning occurs not only through direct experience, but also through observation and imitation (Bandura, 1986). In the context of digital media use, children observe and learn from the behaviors of their parents and other individuals in their immediate environment (Coşkunalp, 2022). Lauricella et al. (2023) argue that children's screen use habits are shaped similarly to their parents' media usage. In their study, they found that the amount of time parents spend using media and technology directly affects the time children spend in front of screens and their media consumption habits. Similarly, in a study, conducted with a sample of over 2,300 parents of children aged 0-8 across the United States, parental screen time was found to be the strongest predictor of children's screen time (Lauricella et al., 2015). The research demonstrates that the time parents spend in front of screens strongly influences children's screen use. Since children often model their parents' behaviors, it has been noted that high parental screen use leads to children spending more time in front of screens as well.

Parents not only serve as role models for their children regarding the use of digital media tools, but also guide and direct their media usage (Wu et al., 2014). Conscious media use by parents encourages children to use digital media tools in a responsible and beneficial manner. Therefore, according to social learning theory, it can be said that parents' mediation roles significantly influence children's digital media habits and media consumption behaviors (Nikken & Schols, 2015).

Parental mediation involves not only controlling screen time but also evaluating the content that children are exposed to and helping them make sense of digital media environments. Children learn how to use these tools both educationally and socially from the cues they receive from their parents about media usage. Thus, parents' healthy interactions with digital media contribute to children being able to exist in the digital world in a safer and more informed manner (Valkenburg, et al., 2013). While this theory highlights the influence of parents as role models in children's digital media use, it also connects to the broader environmental influences emphasized in ecological systems theory.

Parental Mediation in the Context of Ecological Systems Theory

According to Bronfenbrenner's Ecological Systems Theory, children develop within multilayered and interconnected social environments (Bronfenbrenner, 1978, as cited in Tudge, 2013). This theory emphasizes the role of both individual characteristics and environmental factors in the development process. A child's development begins with the family, the first social environment into which they are born, and is shaped by the influences of this environment. Over time, the child becomes part of broader social contexts, such as school, peer groups, and the community. Each of these contexts directly and/or indirectly affects the child's development and plays an important role in their social, cognitive, and emotional growth. To better examine these environmental factors, parental mediation within

Bronfenbrenner's Ecological Systems Theory couldbe evaluated across five different layers that influence a child's development: microsystem, mesosystem, exosystem, macrosystem, and chronosystem.

Microsystem refers to the immediate environment in which the child interacts daily, including family, friends, and other close contacts. In this context, parents become a critical part of the microsystem through digital media, directly influencing children's media use habits. The interactions that parents establish with their children determine how they engage with digital media content, what benefits they derive from it, or what risks they may face (Livingstone & Helsper, 2008). Uncontrolled use of digital media tools can have direct effects on children, leading to both positive and negative outcomes. Active parental mediation plays a key role in shaping how children experience digital content and how they benefit from it. This guidance functions as a safety filter in children's media use, helping to promote a more conscious and healthy usage.

Mesosystem encompasses the connections and interactions between different microsystems with which the child is directly involved. In this context, a parent's relationship with media and their usage of media tools significantly shape the child's interactions with digital media tools. A study conducted in the United States shows that parental screen time and parental attitudes influence children's screen time (Lauricella et al., 2015). Parents' screen use and attitudes toward digital media directly affect their children's screen usage habits, with positive or negative attitudes toward screen time shaping children's media consumption habits. Parents' mediation roles play a crucial part in regulating and guiding their children's media experiences. In this process, parental attitudes affect not only the frequency of their children's media use but also their content preferences and ways of interacting with media. Additionally, Tiitinen Mekhail et al. (2024) highlighted the role of parental media mediation in shaping media habits among socioeconomically disadvantaged groups, emphasizing how contextual factors influence the effectiveness of these mediation strategies.

Exosystem includes external environmental factors that the child does not directly interact with but that influence them indirectly. This system is important to understand how external dynamics surrounding the child shape their development processes. For example, parents' work conditions can indirectly affect children's use of digital media. Parents with demanding work schedules may encourage their children to use media tools to occupy themselves at home while they work or rest (Ergüney, 2017). This situation shapes children's media usage habits, leading to a more passive role for parents in guiding and controlling their children's media consumption and resulting in children consuming media content without supervision or guidance.

Macrosystem represents cultural and societal norms. The impact of digital media usage on child development is also shaped by the society's approach to technology and cultural values (Utma, 2020). In societies where digital media tools are widely used, children are observed to be introduced to media at earlier ages (Ernest et al., 2014). What society accepts or tolerates is a significant factor influencing the way children are raised.

Chronosystem encompasses changes that occur over time. The influence of digital media on children evolves over time with the continuous development of technology and media tools. Children's media usage habits also evolve with the emergence of new technologies. While earlier studies primarily focused on television viewing habits, contemporary research addresses the use of computers, tablets, and smartphones more extensively. Although television remains a significant traditional media tool, the rapid development of digital technologies means that children now have access to a much wider variety of screen devices. This shift has led to a major change in media usage research, which now focuses more on children's interactions with digital media platforms, especially on mobile devices, rather than just television (Tiitinen Mekhail et al., 2024).

When considered within the context of ecological systems theory, media mediation is revealed to be a multilayered structure that shapes a child's relationship with the digital world. Parents have the power to control and positively influence their children's media consumption habits by directly mediating. However, this process is not limited to the family level but is also affected by broader environmental factors

such as society, culture, and media policies. Active parental involvement in children's digital media use contributes significantly to their safe and informed participation in the digital world. Therefore, the media mediation process emerges as a critical factor that supports both the individual and societal development of the child.

Parental Mediation in the Context of Technology Subsystem Theory

The Technology Subsystem Theory is an adaptation of the ecological systems theory to the conditions of the digital age (Johnson, 2010). This theory focuses on children's interactions with digital media and technology as an extension of the microsystem within the ecological system. Within the microsystem, the technological subsystem, as a dimension of environments that directly affect the child, encompasses the child's interactions with both social elements (e.g., peers) and physical elements (e.g., technological devices) (Johnson & Puplampu, 2008). In this context, parental mediation plays a significant role within the technology subsystem. Parents actively guide their children's relationship with digital media, taking on roles such as content selection and screen time control. The core elements of the technology subsystem—digital tools and media content—create complex cognitive and social interactions during children's developmental processes. Parental mediation in this process ensures that children develop healthy digital habits and are protected from potential risks of technology. This theory emphasizes the role of digital technologies in child development, addressing the developmental outcomes of internet use and technological innovations in childhood from a holistic perspective (Johnson & Puplampu, 2008). It particularly examines how interactions with internet and digital media tools (such as computers, tablets, and the internet) contribute to or affect children's cognitive and social development. Parental mediation is a critical factor in ensuring that these interactions occur within healthy boundaries.

The Technology Subsystem highlights the effects of digital technologies on child development by examining a more specific area compared to the ecological system. It is seen as a complementary component to the ecological system to realize the significance of the digital age in child development. Parental mediation includes processes such as digital content selection, screen time control, and mediation regarding children's media experiences, supporting children in establishing healthy boundaries in terms of media usage.

Findings

Parental mediation is an essential process in shaping children's interaction with digital media, helping to ensure that their media consumption is both beneficial and safe. Through the lens of various theoretical frameworks, the importance of parental roles becomes evident. Vygotsky's sociocultural development theory highlights the role of social interaction and adult guidance in fostering children's cognitive growth, emphasizing that parents play a critical part in guiding children's understanding of media content. Bandura's social learning theory further supports the notion that children learn through observation, indicating that parents' own media behaviors significantly influence their children's digital habits. Bronfenbrenner's ecological systems theory provides a broader perspective, examining how different layers of a child's environment—including family, peers, and societal norms—affect their development and media interactions. Finally, the technology subsystem theory, particularly, addresses the impact of digital tools and media on child development, underlining the importance of parental mediation in managing screen time, content selection, and guiding healthy digital habits.

Overall, the interplay between these theories underscores the multifaceted nature of parental mediation. It is not merely about setting rules but involves actively engaging with children, providing support, and creating a media-rich environment that promotes positive cognitive, social, and emotional outcomes. In the rapidly evolving digital landscape, parental involvement is crucial in helping children navigate the complexities of digital media and develop a balanced relationship with technology is the main section in which the collected data and results are presented.

Conclusion and Discussion

The results of this study highlight the critical role of parental mediation in shaping children's digital media experiences. By examining the contributions of sociocultural development theory, social learning theory, ecological systems theory, and technology subsystem theory, this literature review reveals that effective parental mediation involves more than merely setting rules for digital media use. Instead, it is a dynamic process that requires parents to actively engage, model positive behavior, and create a supportive environment that promotes the healthy use of digital media.

The sociocultural development theory emphasizes the importance of parents while providing guidance and context for children, which is essential in helping children make sense of complex digital content. Social learning theory further underscores the role of parents as role models, suggesting that children learn healthy media habits by observing their parents' behavior. Ecological systems theory provides a broader perspective, emphasizing that children's media use is influenced not only by family interactions but also by societal norms and environmental factors. Finally, the technology subsystem theory focuses specifically on the digital age, highlighting the need for parents to navigate and manage the specific challenges presented by digital tools and platforms (Adams, 2014; Brown & Caste, 2004; Toran et al., 2019).

Through the integration of these theories, this analysis scrutinizesa comprehensive understanding of how parental mediation can foster positive outcomes in children's cognitive, emotional, and social development. It is evident that parents need to be actively involved, not just in managing screen time but also in facilitating meaningful interactions with digital content that contribute to their children's overall well-being.

The implications of these insights suggest that parents, educators, and policymakers should focus on empowering parents with the knowledge and skills necessary to effectively mediate their children's digital media use. Providing parents with practical guidance and resources on how to implement effective mediation strategies is crucial in helping them to navigate the complexities of raising children in the digital age. Additionally, future research should further explore how different cultural and socioeconomic contexts may influence the effectiveness of parental mediation practices.

All in all, parental mediation is a multifaceted process that requires a balance of guidance, modeling, and active involvement. The integration of sociocultural, social learning, ecological, and technology subsystem theories maintain a robust framework to figure out how parents can effectively support their children's digital media use. By fostering a safe and engaging media environment, parents could help their children develop healthy relationships with technology that contribute to their overall development and well-being.

Declarations

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