



Parental problems in early children's education in the digital era

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ABSTRACT

This research explores the challenges and parenting patterns in early childhood education in the digital era. With rapid technological advancements, parents play a crucial role in guiding their children through new dynamics. The literature review highlights the importance of a balanced parental approach, providing attention and affection while adapting to technological advancements. Employing a quantitative approach with a cross-sectional design, the study investigates parental issues and technology's impact on early childhood development. Data on technology use, screen time limits, allowed content types, and parental educational strategies were collected and statistically analyzed through a structured questionnaire. The research findings reflect diverse parental views on technology use, with the majority acknowledging its benefits but expressing concerns about potential negative impacts. The conclusion underscores the significance of active collaboration between parents, educators, and the community to create a balanced educational environment in the digital era. The proposed solution involves enhancing parental understanding and fostering intensive collaboration to develop a holistic approach to technology use in early childhood education.

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ABSTRAK

Penelitian ini bertujuan untuk menggali permasalahan dan pola pengasuhan orangtua dalam pendidikan anak usia dini di era digital. Dengan pertumbuhan teknologi yang pesat, peran orangtua dalam membimbing anak-anak mereka menghadapi dinamika baru. Tinjauan literatur menyoroti pentingnya pendekatan orangtua yang seimbang dalam memberikan perhatian dan kasih sayang, sambil menyesuaikan diri dengan kemajuan teknologi. Penelitian ini mengadopsi pendekatan kuantitatif dengan desain lintas-seksi untuk mengeksplorasi masalah orang tua dan dampak penggunaan teknologi pada perkembangan anak usia dini. Melalui penggunaan kuesioner terstruktur, data terkait penggunaan teknologi, batasan waktu layar, jenis konten yang diperbolehkan, dan strategi pendidikan orangtua dikumpulkan dan dianalisis secara statistik. Hasil penelitian mencerminkan keragaman pandangan orangtua tentang penggunaan teknologi, dengan sebagian besar mengakui manfaatnya tetapi juga mengekspresikan kekhawatiran terhadap dampak negatifnya. Kesimpulan menyoroti pentingnya kolaborasi aktif antara orangtua, pendidik, dan masyarakat untuk menciptakan lingkungan pendidikan yang seimbang di era digital, dengan solusi yang melibatkan pemahaman yang lebih baik oleh orangtua dan kerja sama intensif untuk menciptakan pendekatan holistik terhadap penggunaan teknologi dalam pendidikan anak usia dini.

Keywords: Era digital; gawai; pola pengasuhan

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INTRODUCTION

In the ever-evolving landscape of early childhood education, the profound impact of the digital era on parental roles cannot be overstated. As we navigate this dynamic terrain, it becomes increasingly evident that parents encounter intricate challenges in guiding their children's educational journey amidst the pervasive influence of technology (Alia & Irwansyah, 2018). The rapid development of information and communication technology has ushered in a new era where young minds are exposed to digital devices from an early age, shaping parenting paradigms in unprecedented ways.

Despite the educational benefits technology offers, parents find themselves at a crossroads, grappling with decisions surrounding screen time and the appropriateness of content for their children (Hafifah & Widjayatri, 2020). Setting limits on digital device usage has become a delicate balancing act, requiring careful consideration of the potential impacts on a child's social, emotional, and physical development. This dilemma prompts an urgent exploration of effective strategies to harness technology as a positive educational tool (Fitri & Hotmauli, 2022). This research delves into crucial aspects of the contemporary parenting landscape, aiming to decipher ideal screen time limits, age-appropriate educational content, and innovative educational approaches that foster a nuanced understanding of technology's role in everyday life. By unraveling the challenges parents confront, this study aspires to provide practical recommendations for establishing a balanced educational environment that supports the holistic development of children during this critical period (Abdullah et al., 2022).

In constructing this narrative, it is imperative to broaden our understanding by exploring existing literature related to parental challenges in early childhood education within the digital era. This literature review serves as the foundation for identifying gaps in knowledge and unanswered research questions. The complexities of contemporary parenting underscore the need for a deeper understanding of the intricacies involved, paving the way for innovative solutions.

A comprehensive review of existing literature reveals several key challenges parents face in navigating the digital landscape of early childhood education. Notably, Alia and Irwansyah (2018) emphasize the increasing complexity of parenting in the face of evolving technology, while Hafifah (2020) sheds light on dilemmas related to screen time and content appropriateness. Fitri (2016) contributes by emphasizing the necessity of effective strategies for leveraging technology positively. However, a critical examination reveals gaps in understanding the ideal screen time limits, the types of educational content suitable for different age groups, and the holistic educational approaches that can navigate these challenges seamlessly.

Despite the wealth of literature, specific gaps persist. The optimal screen time limits for various age groups remain ambiguous, and there is a dearth of comprehensive guidance on the types of educational content that align with developmental stages. Furthermore, the literature lacks a cohesive exploration of educational approaches that strike a balance between harnessing technology for learning and safeguarding children's overall well-being. These gaps in knowledge pose significant impediments to parents striving to create an environment conducive to their children's development in the digital era.

This research aims to contribute to the existing body of knowledge by offering concrete solutions to the modern dilemma faced by parents in early childhood education. It seeks to provide a nuanced understanding of the dynamics involved, ensuring that the recommendations are theoretically sound and practically applicable. The research addresses the need for explicit guidelines on screen time, age-appropriate content, and innovative educational approaches, thereby filling crucial gaps in the current literature. To achieve this, the study focuses on three primary objectives. Firstly, it seeks to establish clear and practical screen time limits tailored to different age groups, providing actionable guidelines for cultivating a balanced digital environment. Secondly, the study aims to identify age-appropriate

educational content, bridging gaps in knowledge to empower parents in curating a digital landscape conducive to their child's developmental stages. Lastly, the research explores and recommends innovative educational approaches that integrate technology seamlessly, fostering holistic development. Through these objectives, the study contributes to academic discourse and provides tangible recommendations to navigate the complexities of contemporary parenting in the digital age, ultimately shaping a more informed approach to early childhood education.

LITERATURE REVIEW

The Role of Parents in Children's Education in the Digital Era

In the digital era, the role of parents in guiding their children's education has become increasingly crucial. As technology continues to shape how we live and learn, parents play a pivotal role in navigating their children through the complexities of the digital landscape. One significant aspect is establishing a comprehensive understanding of the digital world. Parents are tasked with guiding their children on the responsible use of technology, fostering a balance between screen time and other essential activities (Abdullah et al., 2022). Various factors influence the extent and effectiveness of parental involvement in their children's digital education. Cultural dynamics within the family unit significantly impact parental roles. Different cultures may have varying perspectives on technology use, and parents must navigate these cultural nuances to provide guidance that aligns with familial values and the demands of the digital age. Additionally, the values upheld by the family unit play a crucial role. Parents who prioritize curiosity, critical thinking, and ethical considerations create a foundation for their children to engage with digital platforms responsibly (Fatmawati & Sholikin, 2019).

The educational background of parents is another determining factor. Parents with a solid understanding of technology may find it easier to guide their children through the digital landscape, offering insights into its advantages and potential pitfalls. However, parents with limited technological proficiency can play a vital role by actively seeking knowledge and staying informed about the latest digital trends (Aktamiş, 2017). Personal experiences also shape parental perspectives on digital education. Parents who have witnessed the transformative power of technology in their own lives may be more inclined to encourage its use for educational purposes. Conversely, those who have experienced negative consequences may approach their children's digital education more cautiously (Swanzen, 2018).

In conclusion, the role of parents in shaping their children's education in the digital era is multifaceted. Cultural backgrounds, family values, parental education, and personal experiences collectively influence how parents can effectively guide their children through the intricacies of the digital world. A thoughtful and informed approach to digital education is essential, ensuring that children harness the benefits of technology while developing the skills necessary for responsible and ethical engagement.

Parenting and Child Care Patterns

Parenting and childcare patterns encompass a spectrum of approaches and behaviors caregivers adopt in raising and nurturing children. These patterns include various elements such as discipline, communication styles, emotional support, and daily routines. Cultural, societal, and individual factors significantly influence these patterns, contributing to various parenting practices. Understanding these dynamics is essential as they shape a child's development, behavior, and overall well-being. Effective parenting involves striking a balance between providing structure and fostering independence, tailoring approaches to meet the unique needs of each child. Research and discussions on parenting and childcare patterns aim to shed light on effective strategies, challenges, and the impact of different approaches on children's growth and development (Dini, 2022). Parenting styles play a crucial role in shaping a child's

development during their early years. Understanding various common parenting patterns adopted by parents provides insight into the parent-child relationship dynamics. One prevalent model is authoritative parenting, characterized by a balance of warmth and discipline. Parents who adopt this approach tend to set clear expectations while providing emotional support. This style is often associated with positive outcomes in a child's physical, cognitive, social, and emotional development (Patrick et al., 2013).

Conversely, authoritarian parenting is marked by strict rules and high demands, with limited emotional responsiveness. While it may instill discipline, it can potentially hinder a child's social and emotional development by creating an environment of fear rather than understanding. On the other hand, permissive parenting is characterized by high warmth and few demands. While children may appreciate the leniency, it can lead to challenges in setting boundaries and developing self-discipline. A lack of emotional involvement and responsiveness marks a neglectful or uninvolved parenting style. This approach can significantly negatively impact a child's overall development, as the absence of guidance and support may hinder the formation of a secure attachment (Echedom et al., 2018).

The link between parenting styles and child development encompasses various aspects. In the physical realm, a child's health and well-being are influenced by the caregiving environment created by parents. Cognitive development is greatly affected by the level of stimulation, educational support, and intellectual encouragement provided at home (Eiberg & Scavenius, 2023). Socially, parenting styles shape a child's interpersonal skills and ability to form relationships and navigate social situations. Emotionally, how parents respond to their child's needs and emotions plays a critical role in developing emotional intelligence and mental well-being. These parenting styles are not mutually exclusive, and parents may exhibit a combination of these approaches. The key lies in finding a balanced and responsive approach that meets the child's unique needs, fostering a healthy and supportive environment for their holistic development.

The Influence of Digital Technology on Children's Education

Integrating digital technology in children's education has brought about both positive and negative impacts, shaping how they learn and interact with the world. On the positive side, using digital technology in education has enhanced access to vast information and educational resources. Interactive learning apps, online tutorials, and educational games can make learning more engaging and tailored to individual needs. This adaptability allows children to explore subjects independently, fostering a more personalized and effective learning experience (Fatmawati & Sholikin, 2019). However, the proliferation of digital technology in education also comes with challenges. One notable concern is the potential negative impact on physical health, as excessive screen time may contribute to eye strain and sedentary behavior. Additionally, the presence of online content that is not age-appropriate poses a risk to children's well-being. Thus, it becomes crucial for parents and educators to monitor and regulate the content children access, ensuring a safe and healthy digital learning environment (Haidi & Hamdan, 2023).

Moreover, using digital technology in education can influence children's social and emotional development. On the positive side, online platforms can enhance communication skills and collaboration. However, excessive screen time may also lead to decreased face-to-face interactions, potentially affecting social skills and emotional intelligence. Striking a balance between digital and offline interactions is essential to foster holistic development. It is important to recognize that the impact of digital technology on children's education is dynamic and multifaceted. The key lies in harnessing the benefits of technology while addressing and mitigating its potential drawbacks. Educators and parents play a crucial role in guiding children's interaction with digital tools, ensuring that technology is a valuable supplement to traditional learning methods rather than a replacement. Promoting responsible and mindful use of technology can

maximize its positive impact on children's education while minimizing potential risks (Livingstone et al., 2017).

Knowledge Gaps and Literature Need

In the context of the research title, a comprehensive literature review is essential to understand the foundational concepts of early childhood education and parenting patterns, the impacts of the digital era on child development, and the potential benefits and risks of information and communication technology (ICT) in early childhood education. The review further explores strategies and models for early childhood education that align with the needs and characteristics of children in the digital era. Additionally, it investigates how parents can guide and accompany their children in utilizing technology positively and in a balanced manner (Widiastiti et al., 2021). Expanding on factors influencing parenting patterns, the review considers how these patterns may affect various aspects of a child's development, including physical, cognitive, social, and emotional dimensions. This expanded perspective aims to provide a more nuanced understanding of the intricate relationship between parenting styles and the holistic development of a child (Lin et al., 2022).

A notable gap in existing literature lies in the insufficient exploration of the intersectionality between parenting patterns and the digital era's impacts on early childhood education. The specific ways digital technology can contribute positively or potentially pose challenges in parenting are not extensively addressed. Consequently, this research aims to fill this gap by investigating how the digital era can be leveraged for positive parenting practices and how it may influence early childhood development. The goal is to offer practical insights that guide parents in navigating the complexities of modern parenting (Modecki et al., 2022). This literature review underscores the intricate dynamics of early childhood parenting patterns and the digital era's transformative influences. It sets the stage for the proposed research by identifying gaps and laying the groundwork for a more comprehensive understanding of the interplay between parenting, technology, and early childhood development (Widiastiti et al., 2021).

Screen Time and Age-Appropriate Content

Screen time refers to the time individuals spend in front of digital screens, encompassing activities such as watching television and using computers, tablets, and smartphones. Establishing appropriate screen time limits is particularly crucial for early childhood education. Experts often recommend age-appropriate guidelines to strike a balance between harnessing the educational benefits of digital media and mitigating potential risks associated with excessive screen time (Winarti, 2020). For young children, especially those in their early developmental stages, the American Academy of Pediatrics (AAP) suggests minimal or no screen time for children under 18 months, except for video chatting. If screen time is introduced for children aged 18 to 24 months, it should be limited to high-quality programming and watched with a parent to help them understand what they are seeing. From ages 2 to 5 years, screen time should be limited to one hour per day of high-quality educational programming, and parents are encouraged to co-view the content with their children to enhance its educational value (Widiastiti et al., 2021).

When considering educational content suitable for various age groups, aligning the material with the child's developmental stage is imperative. For infants and toddlers, interactive and age-appropriate content that focuses on basic concepts like shapes, colors, and simple language can be beneficial. As children progress to preschool and early elementary, educational content can introduce complex concepts, promote early literacy and numeracy skills, and encourage creative thinking through engaging and interactive formats. Moreover, the quality of educational content is paramount. It should stimulate cognitive development, enhance problem-solving skills, and encourage curiosity. Interactive apps, educational

games, and multimedia content that align with the child's cognitive abilities and attention span contribute positively to the learning experience. Parental involvement in selecting and engaging with educational content is crucial for maximizing its benefits and ensuring that screen time remains a constructive element in a child's early education (Caporaso et al., 2022).

In conclusion, managing screen time and selecting age-appropriate educational content is integral to early childhood education. Striking a balance between leveraging digital media for educational purposes and maintaining healthy screen time limits is essential to support a child's holistic development during these formative years. Parental guidance, informed decision-making, and a focus on high-quality educational content contribute to a positive and enriching screen time experience for young learners.

Tech-Driven Education for Kids

Innovation in child education through technology has ushered in transformative approaches, enhancing learning experiences and expanding educational opportunities. One notable innovation is the integration of interactive and immersive technologies, such as Augmented Reality (AR) and Virtual Reality (VR), into educational settings. These technologies provide children with hands-on and experiential learning, allowing them to explore subjects more engagingly and dynamically. Additionally, the use of adaptive learning platforms is another significant innovation. These platforms leverage artificial intelligence algorithms to tailor educational content to individual students' learning styles and abilities. This personalization ensures that each child receives a customized learning experience, addressing their needs and pacing (Winarti, 2020). Gamification is another innovative strategy incorporating game design elements into educational activities. By introducing game-like features, such as points, levels, and rewards, educational apps and platforms make learning enjoyable and motivating for children. This approach promotes active participation and can enhance retention of educational material (Bucchiarone, 2022).

The concept of flipped classrooms represents a shift in traditional teaching methods. In this model, technology is used to deliver instructional content outside the classroom through online resources, allowing class time to be dedicated to interactive discussions, collaborative projects, and problem-solving activities. This innovative approach fosters a more student-centric learning environment (Ishartono et al., 2022). Furthermore, social media and collaborative online platforms have transformed how children collaborate and communicate in educational settings. Virtual classrooms, discussion forums, and collaborative projects allow students to engage with their peers, share ideas, and work together, fostering community and enhancing social skills (Rautela et al., 2022).

Educators often adopt various models to implement these innovative strategies, such as the SAMR model (Substitution, Augmentation, Modification, Redefinition) or the TPACK framework (Technological Pedagogical Content Knowledge). These frameworks guide educators in integrating technology seamlessly into their teaching practices, ensuring that technology enhances, rather than replaces, effective pedagogy (Rehman et al., 2022).

In conclusion, the innovative use of technology in child education has opened up new possibilities, creating dynamic and personalized learning experiences. These innovations, from immersive technologies to adaptive learning platforms and collaborative online environments, contribute to a more engaging, effective, and inclusive educational landscape for children. As technology advances, ongoing exploration and implementation of innovative strategies will play a crucial role in shaping the future of child education.

Importance of Guidelines for Parents

Explicit guidelines and recommendations for parents regarding screen time limits, age-appropriate educational content, and innovative educational approaches with technology are paramount in navigating

the digital landscape and ensuring a healthy and enriching educational experience for children. First and foremost, clear guidelines on screen time help parents strike a balance between leveraging technology for educational purposes and mitigating potential risks associated with excessive use. These guidelines should consider the age and developmental stage of the child, promoting a mindful and purposeful approach to screen time (Munawar et al., 2019).

Equally important is the need for explicit guidance on selecting age-appropriate educational content. Parents should have access to resources that help them identify high-quality educational materials that align with their child's developmental needs. Such guidance can empower parents to make informed decisions about the digital content their children engage with, ensuring that it complements their learning journey and fosters positive cognitive and socio-emotional development. In addition to content guidelines, explicit guidance on embracing innovative educational approaches is crucial. Parents should be equipped with information on how to incorporate technology meaningfully into their child's learning experience. Understanding models such as flipped classrooms, gamification, and adaptive learning can empower parents to participate actively in their child's education, making the most of the available technological resources.

Several organizations and educational institutions recognize the importance of providing explicit guidelines for parents. For example, renowned health organizations like the American Academy of Pediatrics (AAP) offer evidence-based recommendations on screen time limits for different age groups, promoting the importance of balanced media use in a child's life. Similarly, educational platforms and app developers often provide guidelines and age-appropriate ratings to assist parents in selecting suitable digital content for their children. Moreover, schools and educational institutions may have policies or guidelines in place that extend beyond the classroom, offering recommendations for parents on how to support and reinforce the learning experience at home. Collaborative efforts between educators, health professionals, and parents can contribute to developing and disseminating comprehensive guidelines that address various aspects of technology use in child education (Davies et al., 2022).

In conclusion, explicit guidelines for parents are essential in navigating the digital landscape of child education. By providing clear recommendations on screen time, content selection, and innovative educational approaches, these guidelines empower parents to play an active role in their child's learning journey while fostering a healthy and balanced relationship with technology. Collaborative efforts from health organizations, educational institutions, and technology developers are key to ensuring parents access accurate and relevant guidance in this rapidly evolving digital era.

Early Childhood Parenting Styles

Early childhood parenting styles encompass a range of approaches that significantly influence a child's development and early education. These styles, such as authoritative, authoritarian, permissive, and uninvolved parenting, play a crucial role in shaping a child's behavior, social skills, and academic performance. Authoritative parents typically provide a balance of warmth and structure, encouraging independence. Authoritarian parents lean towards strict rules and less warmth, while permissive parents are characterized by warmth but minimal structure. On the other hand, uninvolved parents show low levels of warmth and structure. Understanding and recognizing these parenting patterns is essential for educators and caregivers to create supportive environments catering to children's diverse needs in their early years.

From birth to around six, early childhood is a critical developmental phase where physical, cognitive, social, and emotional growth occurs rapidly (Dini, 2022). Parenting during this period is pivotal in shaping a child's trajectory, with parents and guardians as primary influencers in determining parenting styles. Factors influencing these styles are diverse, encompassing family culture, espoused values, parental education,

and personal experiences (Bening & Diana, 2022). Unique to each individual, parenting styles often draw from childhood experiences and societal norms, contributing to their distinctiveness (Kusumawati, 2022).

Crucial aspects of parenting include the provision of attention, affection, discipline, and cognitive stimulation. Adequate attention supports emotional development, balanced discipline instills a sense of boundaries and responsibility (Fitria, 2016), and cognitive stimulation through educational games and storybooks is pivotal for cognitive development (Damayanti & Harun, 2023). Furthermore, children's interactions with their environment, encompassing parents, peers, and surroundings, significantly impact their overall development (Dini, 2022). Striking a balance in parenting is deemed essential, as an excess or deficiency of attention, affection, or discipline can disrupt a child's developmental trajectory (Fatmawati & Sholikin, 2019). Thus, parents are urged to comprehend their child's unique needs and tailor a balanced parenting pattern aligned with the child's character and developmental stage. Parental awareness and understanding of the importance of effective parenting are fundamental steps in optimizing a child's potential during early development (Larasani et al., 2020).

Essential aspects of parenting include the attention and affection given to children, the discipline applied, and the stimulation provided in the child's development. Sufficient attention to children helps their emotional development, while balanced discipline teaches children about boundaries and responsibilities (Fitria, 2016). In addition, cognitive stimulation through educational games and storybooks is significant in children's cognitive development (Damayanti & Harun, 2023). Children's interaction with their environment is also a critical factor in parenting. Children need to interact with their parents, peers, and physical environment. The quality of the interactions and environment they experience can significantly impact their development (Dini, 2022).

Impacts Digital Era

The digital era, characterized by pervasive information and communication technology (ICT), has reshaped daily life, work, and interactions on a global scale. With computers and the internet at its core, this era has brought about transformative changes in communication, business, education, and entertainment, among other fields (Rahmat, 2018). High connectivity is a hallmark of the digital era, enabling instantaneous global communication and giving rise to opportunities such as online business, distance learning, and ongoing technological innovations. However, this transformative period also introduces challenges, including concerns related to data privacy and cyber security (Husna & Suryana, 2021). People can connect worldwide in seconds via the internet. It has changed the way we communicate and share information. The digital era has also created many new opportunities, such as online business, distance learning, and technological innovation, that continue to develop. However, data privacy and cyber security challenges also emerge as negative impacts that need to be overcome in this digital era (Husna & Suryana, 2021).

Literature Review Conclusion

The literature review provides a comprehensive summary of relevant findings about the research issue, laying the groundwork for a robust theoretical and conceptual foundation. The review has highlighted various dimensions of the impact of digital technology on child education, including the role of parents, parenting styles, and innovative educational approaches. Several studies underscore the dual nature of technology's influence, emphasizing its positive and negative implications on children's development. In exploring parenting styles, the literature has elucidated the significance of authoritative parenting, characterized by a balance of warmth and discipline, in fostering positive outcomes in children's physical,

cognitive, social, and emotional development. Conversely, authoritarian and permissive parenting styles were identified as potentially hindering certain aspects of a child's holistic development.

The section on the impact of digital technology on education emphasized the need for explicit guidelines for parents, especially concerning screen time limits and age-appropriate content. The literature suggests that a thoughtful and informed approach to technology use can contribute positively to a child's learning experience, promoting cognitive growth and social skills. While the literature has provided valuable insights, specific gaps in knowledge have become evident. There is a need for further research to explore the long-term effects of specific parenting styles and the nuanced interactions between parenting styles and digital technology use in early childhood education. Additionally, more investigation is warranted to understand the evolving landscape of educational technology and its potential impact on children's learning outcomes over time.

Furthermore, the literature review underscores the importance of considering cultural nuances in parenting and technology use, calling for research that delves deeper into how cultural factors influence parental approaches to digital education for children. Understanding these cultural dynamics can inform the development of more tailored and effective interventions. In conclusion, the literature review is a critical foundation for the research, synthesizing key findings and insights relevant to the research problem. While providing valuable information, it also highlights gaps in existing knowledge, signaling the need for further investigation in specific areas. By addressing these gaps, future research can contribute to a more nuanced understanding of the complex interplay between parenting styles, digital technology, and child education, ultimately informing practical interventions and strategies for parents and educators in the digital era.

METHODS

This research uses a quantitative approach to systematically investigate the challenges faced by parents in educating children in the digital era, utilizing existing methodologies and techniques to ensure rigor and reliability. The choice of a cross-sectional research design was based on its suitability to capture a picture of relevant variables at a particular time, offering insight into the current landscape of parental experiences (Utami et al., 2019). The population studied consisted of parents with children aged 3 to 6 years in a particular area, providing a focused picture of the critical early childhood years influenced by the digital era. Purposive sampling techniques will be used to ensure a representative sample that includes a wide range of parental experiences. A structured questionnaire served as the primary instrument of data collection, carefully designed to capture a wide range of information about the use of technology in children's education, setting limits on screen time, types of content permitted, and educational strategies parents use. The questionnaire structure aligned with existing theoretical frameworks in early childhood education (Robbiyah et al., 2020) and included specific questions about how parents integrate technology into their child's learning environment. With a sample of 35 people, this research aims to provide an in-depth understanding of parents' challenges in educating children in the digital era, emphasizing the diversity of experiences in the selected area.

Questionnaires will be distributed via both online platforms and direct engagement with parents willing to participate to facilitate the data collection process. Utilizing online platforms ensures accessibility and convenience for a broader spectrum of participants, fostering a diverse and comprehensive dataset. Including open-ended questions allows for qualitative insights, complementing the quantitative data and enriching the overall analysis. The population and sample size will be meticulously determined to ensure statistical validity, considering factors such as geographical area, demographic diversity, and variations in parental experiences. Specific inclusion criteria encompass parents with children aged 3 to 6 years, while exclusion criteria will be applied to eliminate potential biases. Purposive sampling will be executed with a

deliberate focus on capturing a heterogeneous sample that adequately represents the diverse experiences of parents in the chosen area. The analytical phase will encompass descriptive and inferential statistical analyses, allowing for a comprehensive exploration of relationships between variables. Descriptive statistics will provide a snapshot of the data, while inferential analyses, such as regression or correlation, will reveal more profound insights into the interplay between variables. The robustness of the findings will be further ensured through statistical software, enhancing the accuracy and reliability of the results. The culmination of this research will be the interpretation of findings, offering conclusive insights into parental challenges in educating early childhood in the digital era. These results will not only contribute practically to the development of more effective educational policies and practices. However, they will also hold theoretical implications for the broader discourse on parenting and early childhood education. This methodological framework ensures a systematic and rigorous exploration of the research objectives, facilitating a nuanced understanding of the complex dynamics of parenting and the digital era.

In conclusion, the research methodology involves a deliberate selection of a quantitative approach to thoroughly investigate parental challenges in early childhood education during the digital era. The choice of this method allows for a systematic and numerical analysis of the identified issues. The research design adopted is cross-sectional, providing a snapshot of the variables at a specific time to gain insights into the current landscape of parental experiences. The population under study comprises parents with young children aged 3 to 6 years in a defined geographical area, and the purposive sampling technique ensures a diverse and representative sample. The research instrument, a structured questionnaire, has been meticulously designed to align with existing theoretical frameworks in early childhood education and includes specific inquiries about technology integration into children's learning environments. The questionnaire covers quantitative aspects like screen time limits and content preferences and incorporates open-ended questions to capture qualitative insights. To enhance accessibility and convenience, the questionnaires will be distributed through both online platforms and direct engagement with willing parents. The analytical phase encompasses descriptive and inferential statistical analyses, utilizing statistical software for accuracy and reliability. Specific steps in the research process include participant recruitment, questionnaire distribution, data collection, and a comprehensive analysis of findings. The methodological framework ensures a thorough exploration of the research objectives, contributing to a nuanced understanding of the complex dynamics between parenting and the digital era in early childhood education.

RESULTS AND DISCUSSION

Results

The research findings in **Table 1** reveal varied parental perspectives on incorporating gadgets in early childhood education during the digital era. The data from interviews with 35 respondents illustrates that most (55.2%) of parents express acceptance toward integrating gadgets into their children's education, acknowledging the positive role of digital technology in the learning process (Indriani et al., 2021). The percentage calculation is based on the number of respondents who endorsed using gadgets divided by the total sample size, providing a quantitative representation of parental attitudes. These insights underscore the diversity of opinions among parents, shedding light on the complex landscape of gadget utilization in early childhood education. Conversely, around 27.6% expressed disagreement, indicating skepticism towards the benefits of including gadgets in early childhood education. These varying viewpoints underscore the complexity of parents' attitudes toward integrating technology into early learning.

Table 1. Parental Perspectives on Gadget Use in Early Childhood Education

Aspect Of Question	Percentage
Acceptance of gadget use in children's education	55,2
Rejection of gadget use in early childhood education	27,6
Belief in the significant impact of gadgets on children	86,2
Parental monitoring of children's activities using gadgets	93,1
Belief that gadgets have a positive impact on children's learning	48,3
Divergence of views on the positive impact of gadgets on children	75,9
Belief that gadgets can hinder children's development	62,1
Uncertainty about the effectiveness of gadget use in children's development	34,5

Source: Research 2023

Based on **Table 1**, as many as 86.2% of parents acknowledged the significant impact of gadgets on their children's lives. This shows awareness of the role of technology in shaping children's interactions with the surrounding environment (Lestari et al., 2021). Parents' commitment to monitoring their children's gadget use is evident, with 93.1% actively observing their children during interactions with digital technology, highlighting efforts to maintain a balanced approach (Nugroho et al., 2021). Even though the use of technology is every day, there are differences of opinion regarding gadgets' positive and negative impacts. Of the 35 Respondents, Nearly half of parents (48.3%) believe in the positive impact on children's learning, while most parents (75.9%) expressed concerns about the potential negative impact. Diverse perspectives also emerged regarding whether the use of gadgets hinders children's development, with 62.1% of parents feeling this is an obstacle. Apart from that, around 34.5% of respondents still doubt the effectiveness of gadgets in children's growth and development. This shows the spectrum of parents' views in the digital era (Munawar et al., 2019).

Around 45% of parents admitted to experiencing challenges in setting appropriate screen time limits for their children, highlighting the difficulties in managing technology use. In addition, around 30% expressed concern about the negative impact of excessive screen time on children's development and emphasized the need for effective strategies to balance children's use of technology and daily activities (Rachmaniar, 2021). Interestingly, more than 60% of parents apply traditional educational methods, such as reading books, engaging in creative activities, and using technology. This shows a tendency to seek a balanced approach to educating young children (Pitriyani & Widjayatri, 2022). Statistical analysis showed a significant negative correlation between parents' concerns about excessive screen time and their satisfaction with their child's development ($r = -0.68$, $p < 0.05$). This suggests that as parents' concerns about excess screen time increase, their satisfaction with their child's development decreases. This emphasizes the critical role of effective screen time management in supporting optimal early childhood development in the digital era (Robbiyah et al., 2018).

Discussion

The varied perspectives uncovered in this research shed light on the nuanced landscape of parental attitudes toward gadget use in early childhood education. While a majority recognizes the potential benefits of technology in learning, a substantial portion expresses reservations. This aligns with the broader discourse on the influence of cultural and societal factors on parenting patterns in the digital era (Safitri et al., 2020). The acknowledgment of the significant impact of gadgets on children's lives underscores the pivotal role of technology in shaping early childhood experiences. Parents' active monitoring of their children's gadget activities demonstrates a conscientious effort to strike a balance, emphasizing the need for a nuanced approach to managing technology use (Nugroho et al., 2021).

The divergence in opinions on gadgets' positive and negative impacts highlights the complexity of navigating the digital landscape in early childhood education. This divergence may be attributed to varying

cultural, educational, and experiential backgrounds, emphasizing the need for personalized and context-specific strategies (Munawar et al., 2019). Challenges in setting screen time limits and concerns about negative impacts reflect parents' practical difficulties in managing technology use. Integrating traditional educational methods alongside technology suggests a holistic approach, where parents seek a balanced and diversified educational environment for their children (Pitriyani & Widjayatri, 2022). The significant negative correlation between parental concerns about screen time and satisfaction with their child's development emphasizes the critical importance of effective screen time management. This aligns with existing literature on comprehensive parental guidance in the digital era to ensure optimal child development (Robbiyah et al., 2018).

In relating these findings to existing theories, particularly Piaget's Theory of Cognitive Development, the results align with the notion that technology can serve as a tool facilitating children's interaction with their digital environment (Satrianingrum & Setyawati, 2021). The diverse parental views also underscore the influence of macro-environmental factors, including social and cultural norms, on parenting patterns in the digital era. Integrating principles from child development and education theories becomes crucial to address the identified challenges. Empowering parents with a better understanding of the benefits and risks of technology use is essential, necessitating educational programs encompassing content types, recommended screen time limits, and optimal educational strategies (Widiastiti, 2020; Ulfah et al., 2021).

Educators and early childhood service providers play a vital role in providing practical guidance and resources for parents. Workshops, seminars, and online educational materials focusing on the positive application of technology in early childhood learning can bridge the gap between technology and conventional approaches (Winarti, 2020). The findings from this research contribute valuable insights into the diverse landscape of parental attitudes and challenges in early childhood education during the digital era. The results underscore the need for context-specific strategies and collaborative efforts between parents, educators, and communities to create a balanced educational environment that supports the holistic development of young children.

The results of this research significantly align with the study by Munawar et al. (2019), which explored parental involvement in digital literacy education for young children. Munawar et al. emphasized the growing importance of parents in facilitating their children's engagement with digital technologies, reflecting a shared concern for the role of parents in the digital learning landscape. The findings from both studies underscore the dynamic nature of parental involvement, showcasing its multifaceted impact on early childhood education.

Furthermore, the study by Hafifah and Widjayatri (2022) on the influence of parenting styles, particularly among Generation X and Millennials, on the character development of young children complements our research. While our study delves into parental perspectives on technology use, the paperwork contributes insights into broader parenting patterns and their implications for early childhood development. The collective evidence highlights the intricate interplay between parenting styles, technological integration, and the holistic development of young children, emphasizing the need for a comprehensive understanding of these dynamics. Our research expands upon Munawar et al.'s (2019) and Hafifah and Widjayatri's (2022) findings by exploring parental attitudes toward gadget use in early childhood education during the digital era. The divergence in opinions and the identified challenges in our study resonate with Munawar et al.'s emphasis on the complexities of parental involvement in digital literacy education. Additionally, our findings align with Hafifah and Widjayatri's focus on parenting styles, as our study reveals that various cultural, educational, and experiential backgrounds influence diverse parental perspectives.

The present research contributes to the existing literature by offering specific insights into parental attitudes and challenges in early childhood education during the digital era. The alignment with and extension of previous studies highlights the broader implications of parenting patterns, emphasizing the need for context-specific strategies to address the evolving dynamics of early childhood education. The

combination of these studies provides a robust foundation for educational practitioners, policymakers, and researchers seeking to navigate the intricate relationship between parenting, technology, and the holistic development of young children.

CONCLUSION

This research provides a comprehensive insight into parental perspectives on integrating technology in early childhood education in the digital era. The findings reveal a diverse spectrum of views among parents, reflecting the complexity and challenges of managing the impact of technology on children's learning. Of the total respondents, they accept the use of technology, acknowledging its contribution to the learning process, while expressing skepticism about its benefits. This signifies the diversity of opinions and attitudes characteristic of an era in which technology is increasingly pervasive. One significant finding of this research is the complexity of parental attitudes towards technology, with a significant impact of digital devices on children's lives. Despite most parents recognizing the importance of technology in early childhood education, there are noticeable differences of opinion regarding its positive and negative effects. Parental concerns about screen time management are also highlighted, with challenges in setting appropriate limits. The correlation between these concerns and lower satisfaction with child development underscores the real challenges of using technology in early learning stages.

Based on these findings, the proposed solution involves a holistic and sustainable approach. Implementing targeted educational programs can empower parents with a deep understanding of the dynamics of technology in early childhood education. These programs should provide in-depth insights into the positive and negative aspects of technology use, effective screen time management strategies, and integration of technology with traditional learning methods. Furthermore, it is crucial to strengthen collaboration among education stakeholders, including parents, educators, policymakers, and community leaders. Intensive collaboration can lead to the development of comprehensive and context-specific guidelines that support a wise and balanced approach to the use of technology in early childhood learning. In this context, the role of workshops, seminars, and community-based awareness campaigns becomes crucial in addressing the challenges faced by society in the digital era. Additionally, the research recommends further exploration of cultural nuances influencing digital education and parenting styles. A deeper understanding of these aspects can serve as a foundation for developing more comprehensive guidelines, which are expected to form the basis for a more cohesive and effective approach to supporting the developmental needs of children in the digital age. As a practical suggestion, ongoing collaboration with educational institutions and policymakers is critical to bridging the gap between research insights and actionable strategies that can be implemented in the real world of early childhood education.

AUTHOR'S NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. The author confirms that the data and content of the article are free from plagiarism.

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