

The Digital Playground: Exploring Children's Engagement with Gadgets in Early Childhood

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ABSTRACT

This qualitative descriptive study examined how children aged 3 to 6 years engage with digital gadgets. Data were gathered through semi-structured interviews with nine parents and primary caregivers, alongside non-participant home observations, and analyzed using thematic analysis. Five themes emerged: (1) gadgets are embedded in daily routine and regulated through household rules; (2) intentional app use supports early numeracy and problem-solving; (3) screen withdrawal triggers behavioral challenges, including tantrums and emotional resistance; (4) digital play causes social interaction shifts social interaction shifts, favoring solitary use over peer engagement; and (5) parental reflections characterized by conditional acceptance, balancing educational utility against dependency risks. Observations confirmed children's advanced technical navigation but high resistance during limit-setting. The study is limited by its sample size and reliance on short-term observations within a specific geographic community, which restricts generalizability of the behavioral patterns discovered. Parents should enforce consistent time limits and practice co-viewing. Additionally, pediatric healthcare providers must actively screen for screen time habits and offer structural coaching on digital wellness. This study provides empirical evidence directly linking parental accounts with real-time home observations (methodological triangulation), offering a grounded framework for pediatric nurses to address early childhood media management and digital dependency risks.

Keywords: Digital Gadgets, Pediatric Nursing, Qualitative Descriptive Study, Early Childhood Development, Behavioral Challenges, Triangulation

INTRODUCTION

Statement of the Purpose

This study aims to explore digital gadget usage patterns and their perceived cognitive, behavioral, and social developmental impacts on children aged three to six from the perspective of parents and primary caregivers. Ultimately, the findings seek to provide a systematic framework to guide parents and primary caregivers in balancing digital risks and benefits, while enhancing pediatric nursing care and support early childhood.

Grand Tour Question:

To further explore this, the following sub-questions will be addressed:

1. How do children in early childhood, aged 3-6, interact with digital gadgets in their daily lives?
2. What are the perceived effects on their cognitive learning, behavior, and social developmental milestones?
3. What benefits and challenges do parents/caregivers observe from gadget use?
4. What strategies are used by parents and caregivers to regulate or guide their children's gadget engagement?

Scope and Delimitations

This qualitative study focuses on cognitive, behavioral, and social development in typically developing children aged 3 to 6 in urban areas, using semi-structured interviews and naturalistic observations with a purposive sample of parents and primary caregivers. To maintain focus and environmental consistency, the research excludes families from rural areas, children with diagnosed developmental delays such as autism or ADHD, and clinical medical assessments or long-term growth tracking.

Review of Related Literature

The contemporary evolution of early childhood development has permanently shifted traditional physical play into a multi-dimensional “digital playground” where young children act as active agents, demonstrating critical thinking, technical proficiency, and socio-emotional attachments to touchscreens rather than remaining passive viewers. Local and international literature highlights that while these interactive digital ecosystems enhance early cognitive literacy, collaboration, and learning, they also spark profound parental ambivalence, as caregivers serve as essential domestic “gatekeepers.” Filipino parents and primary caregivers across various socioeconomic backgrounds increasingly struggle to balance the educational advantages of early gadget exposure against pressing concerns regarding behavioral shifts, screen dependency, and compromised social interaction habits. Ultimately, this body of literature establishes that early childhood technology integration requires a delicate mediation strategy where parents must carefully regulate boundaries to preserve typical developmental trajectories within a rapidly evolving digital landscape.

Theoretical Framework

This study is theoretically anchored in the integration of three major nursing models - Rozzano Locsin's Technological Competency as Caring, Jean Watson's Human Caring Theory, and Sister Callista Roy's Adaptation Model- to provide a comprehensive lens for understanding early childhood digital gadget engagement. Under Locsin's framework, technical literacy and understanding how a child navigates digital tools are recognized as contemporary expressions of parental care rather than developmental barriers. Concurrently, Watson's theory is utilized to investigate whether gadget use disrupts or facilitates meaningful “caring ” and genuine connections between caregivers and children at home. Finally, Roy's model positions the digital gadget as a focal stimulus prompting systematic cognitive, behavioral, and social adaptation in the child, while framing parents as essential regulators who steer these behavioral responses toward healthy developmental outcomes.

Methodology

This chapter outlines the qualitative methodology used to investigate engagement with digital devices among children aged 3 to 6 years and its perceived influence on their early developmental milestones. By gathering descriptive data directly from the natural environments where these digital interactions occur, this approach establishes a structured framework to analyze urban family caregiving dynamics and childhood media management.

Research Design

This study utilizes a qualitative design to comprehensively explore the intricate ways young children interact with digital gadgets and to examine the perceived influences on their early milestones. This exploratory approach is highly appropriate as it captures the nuanced realities, underlying processes, and naturalistic observations that statistical analyses alone cannot fully encompass.

Research Steps

The research steps followed a systematic timeline that began with securing institutional ethics approval, progressed to selecting urban family units, and concluded with executing the home-based data gathering and final thematic analysis.

Data Collection and Sample Collection

Using a rigorous purposive sampling design, this study intentionally selected nine distinct urban family units comprising parents, primary caregivers, and typically developing children aged 3 to 6 who regularly interact with digital devices. The final sample size was determined by the principle of thematic saturation, ensuring the collection of rich, non-probability data that authentically connects caregiver narratives with observable childhood behaviors in their natural domestic environments.

Data Analysis Methods

This study employed a systematic qualitative thematic analysis to transcribe, organize, and conduct an in-depth analysis of data gathered from interview transcripts and observational field notes. Through initial coding and thematic mapping, this method provided a flexible framework for linking parental management strategies to children's cognitive, behavioral, and social development, ensuring an authentic reflection of the realities within the digital playground.

Research Hypothesis and Validation

A research hypothesis is omitted from this study, as the focus is on exploring and describing behavioral patterns and caregiver perspectives rather than testing statistical predictions. Validation is achieved through methodological triangulation by cross-checking parents' and primary caregiver interview responses against direct field observations of the children's actual gadget interactions at home.

Study Limitations and Ethical Considerations

This study strictly protected all participants by upholding autonomy through informed caregiver consent and continuous child assent, executing a fair purposive selection process under the principle of justice, and ensuring beneficence, non-maleficence, privacy, confidentiality, veracity, and fidelity through non-disruptive scheduling, secure data encryption, and transparent reporting.

RESULTS AND DISCUSSIONS

The qualitative thematic analysis revealed distinct behavioral patterns and daily routines among children aged three to six, showing how digital gadgets have deeply integrated into their home routines as a modern: digital playground.” These findings directly address the study’s primary purpose by capturing authentic parents’ and primary caregivers’ perspectives and direct field observations, which underscore the critical role of parental management in shaping early childhood media consumption

SUMMARY

This qualitative descriptive study investigated the dynamics of digital gadget exposure among nine parents and primary caregivers of children aged three to six, utilizing semi-structured interviews and field observations to achieve data triangulation across cognitive, behavioral, and social developmental domains. The thematic analysis yielded five major themes: the deep integration and structured regulation of gadgets within daily domestic routines (Theme 1); significant cognitive learning benefits in numeracy, independent problem-solving, and literacy declines during screen transitions (Theme 2); behavioral regulation challenges, including tantrums and temporary self-regulation declines during screen transitions (Theme 3); a distinct social shift characterized by solitary digital immersion over cooperative peer play (Theme 4); and parental reflections marked by a cautious, “conditional acceptance” that balances technology’s educational value against anxieties regarding screen dependency (Theme 5).

CONCLUSIONS

The study concludes that digital devices have become an integral part of the daily routines of children aged 3 to 6, serving as primary tools for early learning, entertainment, and emotional regulation. Ultimately, while gadgets can significantly foster early cognitive development, the quality of structured parental mediation remains the primary determinant of whether technology serves as a developmental aid or a hindrance to a child’s holistic growth.

RECOMMENDATIONS

To optimize the developmental outcomes of children aged three to six, a coordinated approach is recommended across domestic, educational, clinical, and research spheres. Parents and primary caregivers should implement a structured “Digital Health Routine” by limiting screen time to one hour daily, including 30 minutes of active co-viewing, while mitigating transition-related tantrums through visual timers and enforcing gadget-free social zones during meals and playdates. Concurrently, educators and school administrators should preserve tactile, sensorimotor learning in early curricula and host media literacy workshops to empower families to set healthy digital boundaries. In clinical settings, pediatric nurses and healthcare

professionals should provide proactive anticipatory screening to identify early signs of gadget dependency. Finally, future researchers are encouraged to conduct comparative factors to shape parental mediation strategies.

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AI DECLARATION STATEMENT

The author declares that an AI tool was utilized strictly for grammatical refinement and prose structuring, while the research design, data analysis, and final conclusions remain entirely the original and authentic work of the author.

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