Original article

Screen media time in hospitalized children and associated factors: A cross-sectional study at Hue University of Medicine and Pharmacy Hospital, Vietnam

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Abstract

Background: Screen media exposure among children has become ubiquitous, posing developmental risks while also serving as a non-pharmacological distraction during medical care. Although excessive screen media time among pediatric inpatients is widely documented in high-income settings, empirical evidence regarding screen habits and associated family and behavioral factors in developing countries like Vietnam remains scarce.

Objective: To evaluate the status of screen media time and identify associated factors among hospitalized children at Hue University of Medicine and Pharmacy Hospital.

Materials and method: A cross-sectional descriptive study was conducted from April 2026 to August 2026 on 194 pediatric inpatients at the Department of General Pediatrics, Hue University of Medicine and Pharmacy Hospital. Data regarding demographic characteristics, maternal screen habits and discipline, child screen media characteristics, and 24-hour screen media time were collected through self-administered structured questionnaires completed by the mothers. Data were analyzed using descriptive statistics and inferential tests, including Spearman correlation, Kruskal–Wallis, and Mann–Whitney U tests, with a significance threshold of $p < 0.05$.

Results: The mean age of the pediatric patients was 6.03 ± 4.50 years (range: 0 – 16 years), with 52.6% males and 89.2% admitted for acute illnesses. The mean screen media time was 140.53 ± 145.52 min/day (median: 120, IQR: 20 - 240 min/day). The three most common reasons for screen use were lack of alternative activities (43.3%), habit (40.7%), and stress/anxiety reduction (38.7%). Inferential analysis demonstrated that the child age was positively correlated with screen media time ($r = 0.493$; $p < 0.001$), whereas the maternal screen discipline score showed a significant negative correlation ($r = -0.273$; $p < 0.001$). Reasons for screen media use (habit, stress reduction, treatment support, learning, lack of alternative activities) and engagement in non-screen activities (play, learning/creativity) were significantly associated with screen media time ($p < 0.05$). Conversely, gender, medical condition, family income, and maternal screen media time were not significantly associated with screen media time.

Conclusion: Hospitalized pediatric patients spend a substantial amount of time on screen media, which is significantly associated with child age and maternal discipline. Providing hospital-based non-screen diversions alongside supporting positive parental mediation represent promising, modifiable intervention targets that warrant further interventional evaluation

Keywords: *Screen media; screen media time; hospitalized children; maternal discipline.*

1. INTRODUCTION

Children today have widespread access to digital media, including televisions, smartphones, and tablets [1]. Early and frequent exposure to digital media can exert adverse effects on physical health and behavioral development [2, 3]. Consequently, guidelines from the American Academy of Pediatrics (AAP) and the World Health Organization (WHO) recommend strict limits on screen media time while emphasizing the pivotal role of parents in co-viewing and content selection [4 - 6].

In hospital environments, screen media use among pediatric patients is highly prevalent, with rates ranging from 21% to 80%, reaching even higher proportions among children with chronic conditions or those requiring isolation [7]. Hospitalized children not only access in-room televisions but also utilize personal mobile devices, computers, and handheld

gaming consoles, with personal mobile device usage reaching 70–95% in several studies [6, 8]. Physical movement restrictions imposed by intravenous lines, drains, catheters, or infection control measures often lead children to spend extended periods before screens. Indeed, observational evidence indicates that pediatric inpatients aged 4 months to 18 years spend up to 80.3% of their waking hours exposed to screens, with recent studies reporting average hospital screen durations of 4 to 6 hours per day [6, 8]. Evaluating screen media time within the inpatient setting is important because the hospital environment presents distinct behavioral conditions. During admission, screen devices often serve as a practical means for children to cope with acute discomfort, procedural stress, and bed confinement. Furthermore, examining specific reasons for screen use - such as medical distraction, boredom management, or a lack of alternative activities helps clarify the situational drivers of screen exposure, providing practical insights for pediatric nursing care [7].

While screen media can function as an effective non-pharmacological distraction technique during painful medical procedures, excessive and unguided hospital screen exposure exposes pediatric inpatients to adverse developmental outcomes, especially during prolonged hospital stays. Crucially, heightened screen habits acquired during hospitalization often persist after discharge. Furthermore, screen media characteristics - such as duration and the degree of parent-child interaction during viewing - vary substantially across cultural and socioeconomic contexts between developed and developing nations. Similar disparities are likely present within hospital settings [9].

Despite the growing ubiquity of screen devices, empirical research examining screen media consumption patterns and associated factors among pediatric inpatients remains sparse. International literature indicates that hospitalized children experience elevated screen media time influenced by familial factors such as parental supervision [8], disciplinary practices, and nighttime screen exposure [7]. However, these studies have predominantly been conducted in high-income countries and have not comprehensively addressed family and behavioral factors.

In Vietnam, existing literature has focused primarily on screen use during daily home routines, such as during meals or early childhood screen viewing [10, 11]. To date, there is a complete absence of empirical data quantifying actual screen exposure durations and examining concurrent family-behavioral correlates - particularly maternal disciplinary practices - among pediatric inpatients in Vietnamese public hospitals, where bedside institutional screens are unavailable and digital access relies almost exclusively on personal mobile devices brought by caregivers. Clarifying this critical empirical gap is essential for establishing baseline clinical evidence and informing context-appropriate guidelines to balance the dual nature of screen media - as both a therapeutic distraction tool and a developmental concern - in pediatric inpatient care.

Therefore, this study was conducted to address two specific objectives among hospitalized children at Hue University of Medicine and Pharmacy Hospital:

1. To determine the screen media time among hospitalized children at Hue University of Medicine and Pharmacy Hospital

2. To identify factors associated with screen media time in this pediatric inpatient setting

2. MATERIALS AND METHOD

2.1. Study design and setting

This cross-sectional study was conducted from April 2026 to August 2026 at the General Pediatrics Department of Hue University of Medicine and Pharmacy Hospital, a Class I university teaching hospital in Hue, Central Vietnam. The department comprises multiple shared inpatient treatment rooms accommodating 4 to 8 beds per room, primarily admitting children with acute and subacute pediatric conditions. Crucially, inpatient rooms are not equipped with bedside televisions, interactive consoles, or facility-provided media devices. Consequently, all screen media exposure during hospitalization is entirely dependent on personal electronic devices - predominantly smartphones - brought into the ward by family caregivers.

2.2. Study population

The inclusion criteria for this study were: (1) pediatric inpatients admitted to the department and their maternal caregivers; (2) maternal caregivers who had a continuous caregiving duration of more than 24 hours at the time of the survey to ensure sufficient familiarity with the child's daily routines and screen media use; and (3) caregivers who provided informed consent to participate.

The exclusion criteria were: (1) children with multiple hospital admissions during the study period (restricted to initial admissions); (2) caregivers who

declined to participate or were unable to complete the questionnaires; and (3) children whose acute critical conditions or severe cognitive impairments required immediate medical attention that prevented their caregivers from completing the questionnaires.

2.3. Sample size and sampling

A convenience sampling approach was utilized. Eligible pediatric inpatients and their primary maternal caregivers were directly approached and recruited across the inpatient rooms of the General Pediatrics Department during the study period. To ensure reliable recall while capturing established inpatient media routines, mother–child dyads were recruited at least 24 hours after hospital admission. Self-administered structured questionnaires were distributed to the mothers and completed during clinically stable daytime intervals (avoiding active clinical rounds, urgent nursing interventions, or meal times). The minimum required sample size was calculated using the single mean estimation formula:

$$n = \frac{Z_{1-\alpha/2}^2 \, \sigma^2}{\varepsilon^2 \mu^2}$$

Where $Z_{1-\alpha/2}$= 1.96 (for 95% confidence level), σ = 0.67 (standard deviation from Ragavan & Thiyagharajan, 2025), ε = 0.05 (acceptable relative error), and μ = 1.98 hours/day. Substituting these values yielded a baseline minimum sample size of 176. Accounting for a 10% non-response/attrition buffer, the target sample size was established at 194 participants [12]. During the study period, a total of 201 eligible pediatric inpatients and their maternal caregivers (restricted to initial hospital admissions to ensure data independence) were approached and invited to participate in the study. Of these, 7 cases were excluded, comprising 3 caregiver refusals and 4 incomplete questionnaires. Consequently, a final sample of 194 valid mother-child dyads was included in the final data analysis.

2.4. Instruments

The survey instrument comprised the following components:

- General children's characteristics: Child age, gender, ethnicity, current medical condition, parental marital status, household income, and household size.

- Maternal screen media habits and discipline

+ Maternal screen media time was evaluated using a structured self-reported item measuring the time spent using screen-based devices (including smartphones, tablets, computers, and televisions) for personal or entertainment purposes during a typical day of the current hospital admission. Mothers were asked to estimate their average daily usage in minutes per day while accompanying the child in the hospital ward.

+ Maternal screen discipline was assessed using a 5-item structured questionnaire developed by the research team, conceptually adapted from the behavioral items described by Chaiseksamphan & Chonchaiya (2022) to fit the Vietnamese clinical context [8]. The questionnaire evaluates rule-setting and establishing limits, monitoring and tracking usage, praising compliance, recommending age-appropriate content, and reminding the child to stop upon reaching time limits. Each item was rated on a 5-point scale from 1 = never to 5 = always. Overall scores were computed as arithmetic means, with higher scores indicating stronger parental discipline and control. The content validity was reviewed by an expert panel of two pediatricians and two nurses (CVI = 0.90). Subsequently, a pilot study was conducted on 10 participants to evaluate the clarity and readability of the items, and minor linguistic refinements were made based on their feedback. The internal consistency demonstrated an acceptable Cronbach's alpha of 0.69 for a short-item field questionnaire [13] based on the main study data.

- Child screen media use characteristics were evaluated using multiple-choice items allowing multiple responses per participant

+ Reasons for screen media use during hospitalization: Habit, stress reduction, medical treatment support, daily routine support, learning and development, and lack of alternative activities.

+ Non-screen activities during hospitalization: Play activities, learning and creative activities, and routine daily life activities.

- Child screen media time was assessed using a self-administered structured questionnaire completed directly by the mother (the primary caregiver present during hospitalization). Mothers were asked to recall and record the child's cumulative screen media time (in min/day) during the preceding full 24-hour hospital stay (from 00:00 to 24:00 of the day prior to survey completion). Screen media time was operationalized as active engagement with electronic screens - including smartphones, tablets, televisions, and handheld gaming devices - for entertainment, calming, or distraction purposes, excluding passive background exposure without direct visual attention. To enhance recall accuracy and minimize recall bias, the questionnaire guided mothers through a chronological routine breakdown

(morning, afternoon, evening, and bedtime) to systematically log each episode of device use.

The selection of variables was based on prior studies indicating their relevant associations with screen media time. Specifically, child age, maternal screen discipline, and maternal screen time were designated as primary explanatory variables due to their established relationships in previous literature. All other variables - including child gender, ethnicity, religion, medical condition, hospitalization frequency, parental marital status, household income, household size, reasons for screen use, and non-screen activities - were included as exploratory variables to examine their specific roles within the inpatient environment.

2.5. Data analysis

Data were managed, processed, and analyzed using IBM SPSS Statistics for Windows, version 20.0. Descriptive statistics were computed for all study variables; categorical variables were expressed as frequencies and percentages for categorical variables, and as mean ± standard deviation (SD). To ensure methodological rigor and appropriate conceptual alignment, variables evaluated for their relationship with screen media time were structured within a two-tiered analytical framework: (1) baseline demographic and maternal behavioral characteristics (general children's characteristics, maternal screen media habits and discipline), and (2) concurrent contextual and situational factors during admission (caregiver-reported primary reasons for screen use and engagement in alternative non-screen play activities). The normality of continuous data, specifically the child's daily screen media time, was formally evaluated using the Kolmogorov–Smirnov test (and supported by the Shapiro–Wilk test alongside visual inspection of Q-Q plots and histograms). The test demonstrated that the screen media time data deviated significantly from a normal distribution ($p < 0.05$). Consequently, non-parametric inferential statistical methods (Spearman correlation, Kruskal–Wallis test, and Mann–Whitney U test) were selected for hypothesis testing and correlation analyses. For all statistical analyses, a two-tailed p-value of less than 0.05 was established as the threshold for statistical significance

2.6. Ethical consideration

The study was approved by the Scientific Research Ethics Committee of Hue University of Medicine and Pharmacy, Hue University (Approval No. H2026/104) on March 31, 2026. The primary caregivers of the participating children took part entirely voluntarily and signed informed consent forms, and all information was coded to ensure confidentiality. The study did not involve any clinical interventions that would affect the children's health.

3. RESULTS

3.1. General characteristics of pediatric patients

Table 1. General characteristics of pediatric patients (N = 194)

Characteristic	Category	n (%) / Mean ± SD
Child age (years)	—	6.03 ± 4.50 (0 – 16)
Gender	Male	102 (52.6)
	Female	92 (47.4)
Ethnicity	Kinh	184 (94.8)
	Others	10 (5.2)
Religion	No religion	149 (76.8)
	Religious	45 (23.2)
Medical condition	Acute	173 (89.2)
	Chronic	21 (10.8)
Hospitalization frequency (times/year)	—	1.35 ± 1.07 (1 – 12)
Parental marital status	Married (living together)	174 (89.7)
	Married (living apart)	11 (5.7)
	Single	3 (1.5)
	Divorced/Separated	6 (3.1)

Household income (million VND/month)	—	4.67 ± 2.65 (0.8 – 18.0)
Household size (members)	—	4.67 ± 1.22 (3 – 10)

Mean ± SD: mean ± standard deviation; VND: Vietnamese Dong

The mean age of the pediatric patients was 6.03 ± 4.50 years, with males accounting for 52.6%. Most children belonged to the Kinh ethnic majority (94.8%) and were admitted for acute conditions (89.2%). The average household income was 4.67 ± 2.65 million VND/month.

3.2. Maternal screen habits and discipline

Table 2. Maternal screen habits and discipline (N = 194)

Characteristic	Mean ± SD
Maternal screen media time (min/day)	228.02 ± 158.90 (30 – 960)
Maternal screen discipline item scores:	
Rule-setting and establishing limits	3.75 ± 0.97
Monitoring and tracking screen use	3.96 ± 0.92
Praising child for compliance	3.84 ± 1.00
Recommending age-appropriate content	4.29 ± 0.83
Reminding child to stop upon reaching limits	3.84 ± 0.93
Maternal screen discipline scores	3.93 ± 0.93 (1.8 – 5.0)

Mean ± SD: mean ± standard deviation

The mean maternal screen media time was 228.02 ± 158.90 min/day. The mean maternal screen discipline score was 3.93 ± 0.93, with the highest sub-scores observed for recommending age-appropriate content (4.29 ± 0.83) and monitoring screen use (3.96 ± 0.92).

3.3. Hospitalized children screen media use and characteristics

Table 3. Hospitalized children screen media use and characteristics (N = 194)

Characteristic	n (%)/Mean ± SD
Child screen media time (min/day)	140.53 ± 145.52 (0 – 900)
	Median 120 (IQR: 20 – 240)
Reasons for screen media use *	
Habit	79 (40.7)
Stress/anxiety/discomfort reduction	75 (38.7)
Treatment process support	48 (24.7)
Daily life activity support	45 (23.2)
Learning and development support	54 (27.8)
Lack of alternative activities	84 (43.3)
Non-screen activities during hospitalization *	
Play activities	137 (70.6)
Learning and creative activities	51 (26.3)
Daily life routine activities	149 (76.8)

Mean ± SD: mean ± standard deviation; * Multiple responses

The mean screen media time among pediatric inpatients was 140.53 ± 145.52 min/day (median: 120, IQR: 20 - 240 min/day). Lack of alternative activities (43.3%), habit (40.7%), and stress reduction (38.7%) emerged as the primary reasons for screen media use.

3.4. Factors associated with screen media time in hospitalized children

Table 4. Factors associated with screen media time in hospitalized children (N = 194)

Variable	Mean ± SD	Rs//Z/H (p-value)
Age		**0.493*** (p < 0.001)**
Gender		
Male	142.02 ± 147.09	-0.116* (0.907**)**
Female	138.73 ± 144.54	
Ethnicity		
Kinh	138.89 ± 146.22	-0.871* (0.384)
Others	170.03 ± 135.40	
Religion		
No religion	146.51 ± 148.01	-0.548* (0.584)
Religious	120.32 ± 136.59	
Medical condition		
Acute	137.17 ± 148.62	-1.475* (0.140)
Chronic	167.13 ± 116.41	
Hospitalization frequency		-0.128*** (0.074)
Parental marital status		0.804** (0.848)
Married (living together)	135.85 ± 140.27	
Married (living apart)	151.91 ± 161.94	
Single	240.03 ± 274.95	
Divorced/Separated	200.04 ± 206.69	
Household income		-0.003*** (0.962)
Household size		-0.046*** (0.526)
Maternal screen media time		0.050*** (0.486)
Maternal screen discipline score		**-0.273*** (p < 0.001)**
Reasons for screen use		
Habit		
No	90.82 ± 107.61	**-6.227* (p < 0.001)**
Yes	212.73 ± 162.95	
Stress/anxiety/discomfort reduction		
No	129.33 ± 137.78	**-2.098* (0.036)**
Yes	158.15 ± 156.34	
Treatment process support		
No	130.69 ± 143.11	**-2.115* (0.031)**
Yes	170.21 ± 150.22	
Daily life activity support		
No	138.29 ± 156.99	-1.772* (0.076)
Yes	147.66 ± 99.60	
Learning and development support		
No	116.43 ± 142.79	**-4.734* (p < 0.001)**
Yes	202.80 ± 134.76	

Lack of alternative activities		
No	92.73 ± 139.64	**-0.672*** **(p < 0.001)**
Yes	203.51 ± 128.62	
Non-screen activities		
Play activities		
No	178.95 ± 129.75	**-3.543*** **(p < 0.001)**
Yes	124.46 ± 149.14	
Learning and creative activities		
No	120.28 ± 145.34	**-4.369*** **(p < 0.001)**
Yes	197.08 ± 131.59	
Daily life routine activities		
No	155.00 ± 165.59	-0.971* (0.332)
Yes	136.08 ± 139.21	

Mean (SD): mean (standard deviation); *Mann–Whitney test; **Kruskal–Wallis test;*** Spearman's rank correlation;

Child age showed a significant positive correlation with screen media time ($r = 0.493$; $p < 0.001$), whereas maternal screen discipline score exhibited a significant negative correlation ($r = -0.273$; $p < 0.001$). Reasons such as habit, stress reduction, treatment support, learning, and lack of alternatives were significantly associated with increased screen media time ($p < 0.05$). Gender, medical condition, household income, and maternal screen media time showed no statistically significant association ($p > 0.05$).

4. DISCUSSION

4.1. Screen media time in hospitalized children

Our study documented a mean screen media duration of 140.53 ± 145.52 min/day (median: 120, IQR: 20-240 min/day) among hospitalized pediatric patients. This duration is substantially lower than figures reported in pediatric inpatient literature across other international settings [8, 14, 15]. Specifically, Chaiseksamphan & Chonchaiya (2022) reported a median daily screen media time of 360 min/day (6 hours/day, IQR: 2 - 11 hours) among hospitalized children in Thailand [7]. In Brazil, Affeldt et al. (2025) observed a median inpatient screen media time of 270 min/day (4.5 hours/day, IQR: 125 - 413 minutes) [14], while Martins & Bacellar (2024) noted that 52.5% of hospitalized pediatric patients exceeded 2 hours of daily mobile device use [16]. Furthermore, direct observational tracking by Arora et al. (2016) in the United States demonstrated that electronic media screens were active for an alarming 80.3% of pediatric waking hours within hospital rooms [15]. Conversely, in an outpatient pediatric cohort in India, Ragavan & Thiyagharajan (2025) reported an average screen exposure of 1.98 ± 0.67 hours/day (~118.8 minutes/day), which closely mirrors, yet remains slightly lower than, our inpatient findings [12]. We hypothesize that these substantial discrepancies reflect a combination of environmental, clinical, and methodological variations [8, 14, 15].

First, regarding hospital infrastructure and the digital device ecosystem, pediatric inpatient rooms in North America, South America, and Thailand are frequently equipped with dedicated individual bedside televisions, interactive gaming consoles, or hospital-sponsored tablet loan programs [8, 15, 16]. In contrast, at Hue University of Medicine and Pharmacy Hospital, as observational context indicates, screen media access relies almost exclusively on personal smartphones brought by caregivers. We hypothesize that this dependency on personal mobile devices may introduce pragmatic operational constraints - such as finite battery life, cellular data limitations, and the necessity for caregivers to share or reserve devices for personal communication or work-related tasks - thereby potentially serving as contextual barriers curtail continuous, uninhibited screen viewing by the child.

Second, clinical severity, underlying disease spectrum, and duration of hospitalization differ markedly across study populations. Our sample consisted predominantly of pediatric patients admitted for short-term acute illnesses (89.2%), who are typically expected in routine pediatric practice to have relatively brief hospital stays and progressive recovery. In contrast, international studies evaluated long-stay cohorts with high proportions of pediatric hematologic-oncologic malignancies requiring prolonged hospitalization, continuous intravenous

infusions, or strict infection control isolation [8, 14]. In such high-acuity, long-stay clinical contexts, digital devices transcend mere entertainment and serve as a vital non-pharmacological coping mechanism, or "digital distraction," to mitigate procedural pain, hospital-induced anxiety, and severe emotional distress [14, 15] - a situational need far less prominent in short-term acute admissions.

Third, methodological differences in data collection and exposure definition contribute significantly to the variance in reported durations. While direct observational sampling captures all ambient and background television exposure regardless of patient attention [15], our study measured caregiver-reported 24-hour recall specifically targeting intentional, active device use. By inherently filtering out passive background noise, proxy caregiver reports naturally yield lower total screen media time estimates.

4.2. Factors associated with screen media time in pediatric inpatients

Regarding statistically significant correlates, child age demonstrated a strong positive correlation with screen media time, representing a prominent correlate of digital exposure during pediatric admission. This finding aligns closely with international literature identifying advancing age as a key positive factor associated with higher hospital device engagement and digital dependency [8, 15-17]. From a developmental standpoint, older children and adolescents possess greater behavioral autonomy, higher rates of personal smart device ownership, and substantially more complex peer-oriented social connectivity needs. When confined to a hospital setting, these established digital habits not only persist but frequently intensify as older pediatric patients actively utilize interactive media, social networking platforms, and online video streaming to maintain peer contact, seek identity reinforcement, and mitigate feelings of isolation resulting from ward confinement.

Additionally, maternal screen discipline score correlated negatively with child screen media time, highlighting the potential protective association of parental regulatory practices within the clinical environment. This observation is consistent with prior findings underscoring the efficacy of parental limit-setting and guidance in curbing excessive child exposure [8, 12, 17]. Wider international literature further demonstrates that permissive parenting, insufficient limit-setting, and lower caregiver educational attainment represent critical vulnerability factors for uncontrolled screen viewing among children [12, 14, 18]. In the context of pediatric hospitalization, caregivers often experience acute emotional distress, role strain, and fatigue, which frequently lead to a relaxation of normative home rules and the adoption of screen devices as a convenient "digital pacifier" to keep the child compliant and quiet. These findings suggest that children of mothers who actively maintain structured screen rules and consistent boundaries even during acute illness episodes tend to have lower screen media time.

Furthermore, screen media duration was significantly higher among children who engaged with digital devices out of established habit, an acute lack of alternative non-screen recreational activities, or academic/learning support requirements. This behavioral pattern is in strong agreement with observations by Chaiseksamphan & Chonchaiya (2022) and Affeldt et al. (2025), which demonstrated that a severe shortage of non-screen diversionary resources and the pressing need for coping mechanisms to relieve clinical stress constitute the primary situational drivers of pediatric screen usage [8, 14]. In resource-constrained hospital wards lacking dedicated therapeutic playrooms, age-appropriate toys, or supervised recreational activities, interactive personal screens instinctively become the primary diversion to displace procedural discomfort and pervasive ward boredom.

Regarding statistically non-significant variables, child gender exhibited no significant association with screen media duration in our study, consistent with reports indicating that the psychological drive to seek digital distraction during acute illness is universal across biological sex [8, 15, 18]. Similarly, underlying clinical diagnoses, disease severity characteristics, and hospitalization frequency showed no statistically significant differences in total screen duration. While Affeldt et al. (2025) observed an explicit correlation between diminished physical functional status and prolonged screen time in a cohort with 43% oncology patients [14], the immediate situational disruption of the hospital environment in our short-term acute cohort appears to overshadow specific diagnostic subtleties in shaping media consumption patterns.

Finally, baseline socioeconomic factors—including monthly average household income, total household size, parental marital status, and maternal personal screen media time - were not significantly associated with screen media time in hospitalized children. This observation aligns directly

with inpatient investigations by Arora et al. (2016) and Chaiseksamphan & Chonchaiya (2022) [8, 15], yet contrasts markedly with established community- and outpatient-based literature by Ragavan & Thiyagharajan (2025) and Yalçın et al. (2021), where socioeconomic status, parental educational gradients, and domestic home media environments act as primary long-term predictors [12, 18]. A possible explanation for this divergence may be the unique situational "equalizer" effect of the inpatient setting: acute physical discomfort, bed confinement, and the shared scarcity of ward-based stimulation may act as common immediate situational factors that potentially overshadow baseline socioeconomic differences and routine domestic lifestyle habits, creating a universally elevated baseline demand for digital distraction across all inpatient demographic tiers.

Limitations

Several limitations should be acknowledged. First, the cross-sectional design and convenience sampling at a single center preclude causal inferences and limit generalizability. Second, child screen media time was assessed via maternal 24-hour recall, which may be susceptible to recall and social desirability biases, while passive background exposure was not captured. Third, key clinical parameters - namely total length of hospital stay, objective disease severity, and the degree of physical mobility restrictions (e.g., continuous intravenous lines or bed rest) - were not documented, which might act as unmeasured confounders. Furthermore, because multiple bivariate comparisons were conducted across demographic factors, reported reasons, and activity types, unadjusted *p*-values were reported; therefore, findings with marginal significance (p between 0.01 and 0.05) should be interpreted with caution due to the potential risk of Type I error inflation. Future multicenter longitudinal studies employing objective device-tracking metrics and multivariable models adjusting for clinical acuity and mobility status are warranted.

5. CONCLUSION

Hospitalized pediatric patients spend an average of 140.53 ± 145.52 min/day (median: 120, IQR: 20 - 240 min/day) on screen media, primarily driven by a lack of alternative activities (43.3%), habit (40.7%), and a desire to relieve stress (38.7%). Screen consumption exhibited significant correlations with child age (positive correlation) and maternal screen discipline (negative correlation), while showing no significant associations with gender, disease category, and household income. These findings offer practical applications for daily pediatric nursing care. Specifically, pediatric nurses can assess screen habits upon admission and provide practical guidance to parents - such as setting screen limits and encouraging positive parent-child interaction - to support the child's recovery and well-being. Furthermore, providing hospital-based non-screen recreational activities alongside supporting positive parental discipline may serve as promising intervention targets to mitigate excessive screen media time during pediatric hospitalization, which warrants further evaluation in future interventional studies.

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Conflict of interest

The authors declare no conflicts of interest relevant to this article.

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