New

## Differential roles of problematic media use by mothers and toddlers in the relation between parenting stress and toddlers’ socioemotional development

**2. Authors: Koeun Choi**, **Yea-Ji Hong**

**3. Year of Publication: 2025**

**4. Research Questions**

This study examines:

* The role of **problematic media use** by both **mothers** and **toddlers** in the association between **maternal parenting stress** and **toddlers’ socioemotional development**.
* Whether **mothers' problematic media use** influences **toddlers' problematic media use**.
* How **parenting stress** indirectly affects **toddlers’ socioemotional development** through **media use behaviors**.

**5. Summary of Data Collection and Methodology**

This study collected data from **215 mothers** and **73 lead child care teachers** of toddlers aged **24–36 months** enrolled in **child care centers in South Korea**. Structural Equation Modeling was used to analyze interactions among **parenting stress**, **maternal problematic media use**, **toddlers' problematic media use**, and **socioemotional development**.

**Sample Description**

|  |  |
| --- | --- |
| **Aspect** | **Details** |
| **Participants** | 215 mothers & 73 child care teachers |
| **Age Group of Children** | 24–36 months (2-6 years) |
| **Country of Study** | South Korea |
| **Data Collection Method** | Surveys completed by mothers and child care teachers |
| **Study Setting** | Child care centers |

**6. Summary of Key Findings in the Context of Parental Smartphone Use & Child Development**

* **Toddlers' problematic media use** is linked to **parenting stress** and impacts **socioemotional development**.
* **Maternal parenting stress** was **positively related** to **mothers’ problematic media use**, though maternal media use was **not directly related** to toddlers’ socioemotional development.
* **Toddlers’ problematic media use** mediated the relationship between **maternal parenting stress** and **toddlers’ socioemotional development**.
* Highlights the **importance of managing screen time** in toddler years to support **healthy socioemotional development**.

**Limitations**:

* **Self-reported data**: Mothers’ assessments may introduce **bias**.
* **Cultural context**: Findings may not generalize beyond **South Korea**.
* **Cross-sectional study**: No **longitudinal** data to track **long-term effects**.

### Young children’s screen time: The complex role of parent and child factors

Alexis R. Lauricella, Ellen Wartella, Victoria J. Rideout (2015)

**Research Questions**

* H1: Is parent screen time positively associated with child screen time across television, computers, smartphones, and tablets?
* H2: Are parental attitudes about each technology’s impact positively linked to child screen time?
* H3: Does child screen time differ by age (under 2, 2–5, 6–8) across all four platforms?
* RQ1: Do parent media use, parent attitudes, and child age interact to predict child screen time?

**Summary of Data Collection and Methodology**

|  |  |
| --- | --- |
| **Aspect** | **Details** |
| Participants | 2 ,326 U.S. parents (58% mothers, 42% fathers), each reporting on one randomly selected child age 0–8 |
| Age Group of Children | 0–8 years, analyzed in three bands: under 2 (19%), 2–5 (45%), 6–8 (36%) |
| Country of Study | United States |
| Data Collection Method | Online survey via GfK’s nationally representative Knowledge Panel; parents reported weekday/weekend screen time for themselves and their child; attitudes rated on nine developmental outcomes per device |
| Study Setting | Home environment |

**Key Findings: Parental Smartphone Use & Child Development**

* **Parental smartphone time was strongly correlated with child smartphone use**, especially for children aged 2–8.
* Parents who used smartphones more heavily had children who spent **significantly more time** with smartphones.
* Positive **parental attitudes toward mobile devices** were associated with increased child use, particularly for older children (6–8 years).
* **Under age 2**, the correlation between parental and child smartphone use was **not statistically significant**, possibly due to developmental limitations.

**Limitations**

* All screen‐time measures were self‐reported, introducing recall and social‐desirability bias.
* Cross‐sectional design prevents any causal inference between parent behavior and child use.
* The survey didn’t capture co-use (e.g., parent–child joint media activities) or detailed content/context of screen interactions.
* Despite weighting, panel recruitment and nonresponse may limit full representativeness of U.S. parents.

### Parent and child problematic media use: The role of maternal postpartum depression and dysfunctional parent-child interactions in young children

**Hailey G. Holmgren**, Laura Stockdale, Megan Gale, Sarah M. Coyne  
**Published in 2022** in *Computers in Human Behavior*

**Research Questions**

* How do symptoms of **maternal postpartum depression (PPD)** influence:
  + Parent-child dysfunctional interactions
  + Parent and child problematic media use
  + Parental depression over time
* Does **parent-child dysfunctional interaction** mediate the relationship between maternal PPD and media use/depression?

**Summary of Data Collection and Methodology**

|  |  |
| --- | --- |
| **Aspect** | **Details** |
| **Participants** | 491 mothers (female primary caregivers) |
| **Age Group of Children** | Under 1 year old at Time 1 (Mean = 5.95 months) |
| **Country of Study** | United States |
| **Data Collection Method** | Longitudinal surveys over 3 years |
| **Study Setting** | Home-based surveys via Qualtrics; some in-person recruitment |
| **Time Points** | Time 1: PPD & interaction; Time 2: interaction; Time 3: media use & depression |
| **Retention Rate** | 89% across three waves |

**Summary of Key Findings in the Context of Parental Smartphone Use & Child Development**

* **Maternal PPD at Time 1** was significantly associated with:
  + Increased **parent-child dysfunctional interactions** at Time 2
  + Higher levels of **problematic media use** in both parents and children at Time 3
  + Elevated **parental depression** at Time 3
* **Dysfunctional interactions** mediated the link between PPD and **parental depression**, but **not** between PPD and media use.
* **Problematic media use** in children was linked to:
  + Emotional dysregulation
  + Difficulty disengaging from screens
  + Increased screen time as a coping mechanism
* **Parents with PPD** may use media (e.g., smartphones) for distraction or social support, which can evolve into **problematic use patterns**.
* These patterns can lead to **technoference**—media use interfering with bonding and interaction—potentially modeling unhealthy habits for children.

## Screen media exposure and behavioral adjustment in early childhood during and after COVID-19 home lockdown periods

**Noa Gueron-Sela**, Ido Shalev, Avigail Gordon-Hacker, Alisa Egotubov, Rachel Barr  
**Published in 2023** in *Computers in Human Behavior*

**Research Questions**

1. How did young children’s screen media use change before, during, and after COVID-19 lockdowns?
2. Are different aspects of screen media use during lockdowns related to children’s post-lockdown behavioral adjustment?
3. Do child characteristics (e.g. age, sex), developmental stage, and contextual factors (e.g. family income) moderate these associations?

**Summary of Data Collection and Methodology**

|  |  |
| --- | --- |
| **Aspect** | **Details** |
| **Participants** | 313 mothers of children aged 2–5 years |
| **Age Group of Children** | 24–60 months (Mean age = 3.6 years) |
| **Country of Study** | Israel |
| **Data Collection Method** | Online surveys via MIDGAM panel at 5 timepoints (pre-, during, and post-lockdown) |
| **Study Setting** | Home-based during national lockdowns |

**Summary of Key Findings in the Context of Parental Smartphone Use & Child Development**

* 📱 **Parental mobile device use** during parenting routines (meals, playtime, bedtime) was associated with:
  + Increased **externalizing and internalizing behavior problems** in children post-lockdown
  + Disrupted parent-child interactions, contributing to **technoference**
* 📺 **Background television exposure** was linked to:
  + Lower play quality and reduced parent-child engagement
  + Higher emotional and conduct problems during lockdown, though not predictive post-lockdown
* 🎮 **Use of media to regulate child distress** (e.g. calming upset children with screens):
  + Correlated with **emotional dysregulation** and **negative affect**
  + May hinder development of **self-regulation skills**
* 📊 **Overall screen time** increased significantly during lockdowns but was **not a strong predictor** of post-lockdown behavior problems when controlling for other factors
* 🧠 **Moderating factors**:
  + Children with higher baseline behavior problems and families with lower income were more susceptible to negative effects of media exposure
  + Younger children showed greater sensitivity to contextual media use

## Screen Time for Parents and Caregivers: Parental Screen Distraction and Parenting Perceptions and Beliefs

**Alixandra Blackman**   
**Published in 2015**   
Doctoral Project submitted to Pace University

**Research Questions**

1. Is there a relationship between the time that parents and caregivers spend on electronic devices and the screen time use of children?
2. What is the frequency of parental screen time (PST) and parental screen distraction (PSD), and are the two associated?
3. Are PST and PSD associated with the importance parents and caregivers place on parenting behaviors?
4. Do demographic variables (e.g., income, education, age) moderate the relationships among PST, PSD, and parenting beliefs?

**Summary of Data Collection and Methodology**

| **Aspect** | **Details** |
| --- | --- |
| **Participants** | 93 parents and caregivers (combined as “Parent Group”) |
| **Age Group of Children** | 24–36 months |
| **Country of Study** | United States |
| **Data Collection Method** | Surveys: Screen Time Questionnaire (STQ) and Parent Behavior Importance Questionnaire-Revised (PBIQ-R) |
| **Study Setting** | Home and child care centers |
| **Inclusion Criteria** | Caregivers who spend ≥20 hours/week with children |

**Summary of Key Findings in the Context of Parental Smartphone Use & Child Development**

* 📱 **Parental Screen Time (PST)** was **positively correlated** with:
  + **Child screen time**
  + **Parental screen distraction (PSD)**
* 🔄 **Parental Screen Distraction (PSD)** was:
  + **Negatively correlated** with **parental responsivity** — suggesting that distracted parents may be less emotionally available or responsive to children’s needs.
* 🧠 **Parenting beliefs** (e.g., importance of bonding, discipline, sensitivity) were **affected by screen use**:
  + Higher PSD was linked to **lower perceived importance** of key parenting behaviors.
* 📊 **Moderating factors**:
  + **Education level** and **income** significantly influenced the relationship between PST and PSD.
  + Higher education/income was associated with **less distraction** despite screen use.

**Limitations Mentioned**

* **Small sample size** (n = 93) limits generalizability.
* **Self-report bias**: All data were collected via questionnaires, which may not reflect actual behavior.
* **Cross-sectional design**: Limits ability to infer causality.
* **Lack of observational data**: No direct measurement of parent-child interactions.

### Tantrums, toddlers and technology: Temperament, media emotion regulation, and problematic media use in early childhood

Sarah M. Coyne, Jane Shawcroft, Jordan T. Etherington, Megan Gale, Hailey Holmgren, Douglas A. Gentile, Laura Stockdale  
**Published in 2021**

**Research Questions**

1. How is **parental use of media to regulate children’s emotions** associated with **problematic media use** in toddlers?
2. Does **child temperament** (e.g., negative affect, surgency) influence the development of problematic media use?
3. Is **emotional reactivity** to media removal linked to media emotion regulation and temperament?

**Summary of Data Collection and Methodology**

|  |  |
| --- | --- |
| **Aspect** | **Details** |
| **Participants** | 269 toddlers (aged 2–3 years) and their primary caregivers |
| **Age Group of Children** | 24–36 months |
| **Country of Study** | United States |
| **Data Collection Method** | Surveys and observational tasks conducted in-home |
| **Study Setting** | Home-based assessments (Denver, Colorado area) |
| **Measures Used** | ECBQ-SF for temperament, PMUM-SF for problematic media use, custom media emotion regulation scale, video-coded emotional reactivity |

**Summary of Key Findings in the Context of Parental Smartphone Use & Child Development**

* 📱 **Media emotion regulation** (using screens to soothe toddlers) was **positively associated** with:
  + **Problematic media use** in children (e.g., dependency, tantrums when screens are removed)
  + **Extreme emotional reactivity** when media was taken away
* 🧠 **Temperament traits**:
  + **Negative affect** and **surgency** were linked to higher media emotion regulation and problematic media use
  + **Effortful control** was negatively associated with media emotion regulation
* 🔄 **Mediation effects**:
  + Media emotion regulation **mediated** the relationship between temperament and problematic media use
  + Children with difficult temperaments were more likely to be soothed with media, which in turn predicted problematic use
* 🎬 **Observational findings**:
  + Children showed **strong emotional reactions** (e.g., tantrums, crying) when media was removed, especially if media was frequently used to regulate emotions

**🔗 Link Between Parental Media Use and Study Outcomes**

* **Parental media time** was **positively associated** with:
  + **Media emotion regulation** — parents who spent more time using media were more likely to use it to soothe their toddlers.
  + This suggests that **parents who are frequent media users themselves** may be more inclined to rely on screens to manage their child’s emotions.
* **Parental media time** was also **negatively associated** with:
  + **Extreme emotional reactivity** when media was removed — possibly indicating that children of high-media-use parents may be more accustomed to screen transitions or less reactive.

**Interpretation in Context of Parental Smartphone Use & Child Development**

This study reinforces the idea that **parental media habits** — including smartphone use — are not just background noise. They actively shape how parents manage their child’s emotional states and may contribute to the development of **problematic media use** in toddlers. The more parents use media themselves, the more likely they are to use it as a **regulatory tool**, which can hinder children’s development of **self-soothing and emotional regulation skills**.

**Limitations**

* **Cross-sectional design** limits causal inference
* **Self-report bias** from parents may affect accuracy
* **Sample limited to one geographic area** (Denver, CO), reducing generalizability
* **Short observational window** may not capture long-term emotional patterns

### Media Use of Mothers, Media Use of Children, and Parent–Child Interaction Are Related to Behavioral Difficulties and Strengths of Children

**2. Authors: Tanja Poulain et al.**

**3. Year of Publication: 2019** (Published on **November 22, 2019**)

**4. Research Questions**

This study investigates:

* The **associations** between **media use of mothers**, **media use of children**, and **parent-child interactions** with **behavioral strengths and difficulties** in children.
* Whether **high maternal screen time** influences **children’s screen time**.
* How **parent-child interactions** contribute to **behavioral outcomes** in children.

**5. Summary of Data Collection and Methodology**

This study analyzed **553 children** aged **2–9 years** and their mothers in **Germany**. Researchers assessed **screen time** (TV, games console, computer, mobile phone) and **parent-child interaction frequencies**. Behavioral strengths and difficulties were measured using the **Strengths and Difficulties Questionnaire (SDQ)**.

**Sample Description**

|  |  |
| --- | --- |
| **Aspect** | **Details** |
| **Participants** | 553 children & their mothers |
| **Age Group of Children** | 2–9 years (Mean = 6.21 years) |
| **Country of Study** | Germany |
| **Data Collection Method** | Parental questionnaires |
| **Study Period** | July 2017 – December 2018 |

**6. Summary of Key Findings in the Context of Parental Smartphone Use & Child Development**

* **Children whose mothers reported high screen time (≥5 hours/day) were significantly more likely to have high screen time (≥2 hours/day)**.
* **High screen time in children** was associated with:
  + **More conduct problems**.
  + **More symptoms of hyperactivity/inattention**.
  + **Less prosocial behavior**.
* **High screen time in mothers** was associated with:
  + **More emotional problems**.
  + **More conduct problems**.
  + **More symptoms of hyperactivity/inattention**.
* **Higher parent-child interaction frequency** was linked to:
  + **Fewer conduct problems**.
  + **Fewer peer-relationship problems**.
  + **More prosocial behavior**.

**7. Limitations**

* **Self-reported data**: Parent-reported assessments may introduce **bias**.
* **Sample characteristics**: Mostly **middle-to-high SES families**, limiting **generalizability**.
* **Cross-sectional design**: The study does not assess **long-term effects** of parental smartphone use.

### Nod, nod, ignore: An exploratory observational study on the relation between parental mobile media use and parental responsiveness towards young children

Monika Abels, Mariek Vanden Abeele, Toke van Telgen, Helma van Meijl (2018)

**Research Questions**

* H1a–e: When caregivers use their mobile phones, are their responses to children’s bids for attention (a) less frequent, (b) weaker in strength, (c) less timely, (d) less emotionally positive, and (e) do children have to increase their effort to elicit a response?
* RQ1: Is there a negative linear relation between the degree of caregivers’ absorption in phone use and their responsiveness?
* H2: Are caregivers less responsive when engaged with their phones than when engaged in other non–child-related activities?
* RQ2: Do caregivers who use phones in their child’s presence report higher fear-of-missing-out (FOMO), stronger phone-checking habits, or more problematic phone dependency?

**4. Summary of Data Collection and Methodology**

|  |  |
| --- | --- |
| Aspect | Details |
| Participants | 25 caregiver–child dyads (19 mothers, 6 fathers; caregivers’ mean age 36 years) |
| Age Group of Children | 0–5 years (mean 26.3 months, SD 18.1) |
| Country of Study | The Netherlands (Tilburg) |

**Data Collection Method**

* Systematic time-sampling observations (25 intervals of 10 s observation + 15 s coding)
* Two trained observers coding:  
  • child bids for attention (gaze, movement, auditory, touch, taking object)  
  • caregiver responses (occurrence, strength, timeliness, emotionality)  
  • non–child-related activities, with absorption levels (passive, occasional, exclusive)
* Post-observation questionnaire: FOMO, phone-checking habit, problematic phone use  
  | Study Setting | One public playground and two child health centers (routine check-ups & vaccinations) |

**5. Key Findings in the Context of Parental Smartphone Use & Child Development**

* Caregivers’ phone engagement was associated with:  
  • Lower odds of responding at all to children’s bids  
  • Weaker, more delayed, and less emotionally positive responses
* Degree of absorption mattered: exclusive phone use produced the strongest drop in responsiveness, exceeding the impact of other distractors (e.g., reading, eating).
* When phones were present, children had to use more channels (e.g., waving + calling out) to secure the same level of caregiver attention.
* Caregivers who actually used their phones during observation scored higher on FOMO, habitual checking, and problematic phone-use scales than those who did not.
* Given the pivotal role of contingent responsiveness in language, socio-emotional and attachment development, frequent “absent presence” on smartphones may undermine children’s early learning opportunities.

**6. Limitations**

* Small, non-random (opportunity) sample of 25 dyads limits generalizability.
* Short observation window (max 10 min 25 s) may not reflect habitual caregiver behavior.
* Participants knew they were being observed for parent–child interaction (possible reactivity).
* Cross-sectional, observational design precludes causal claims about long-term developmental impact.
* Questionnaire measures of FOMO and phone dependency rely on self-report and may be biased.

### Does parental smartphone use predict parents’ perceptions of family life? An examination of momentary associations between parental smartphone use, parental experiences of quality time, and parental perceptions of difficult child behavior

### (repeat see also the next one)

Floor Denecker **et al.** 2023

**Research Questions**

* Do frequency and duration of parental smartphone use in the presence of their child predict parents’ momentary perceptions of quality time and child restlessness?
* Does perceived technoference (interruptions caused by smartphone use) mediate the link between co-present smartphone frequency and (a) quality time and (b) child restlessness?
* Does perceived time displacement (time with the smartphone displacing parent–child interactions) mediate the link between co-present smartphone duration and (a) quality time and (b) child restlessness?
* To what extent do these within-person associations vary across individual parents (heterogeneity)?

**Summary of Data Collection and Methodology**

|  |  |
| --- | --- |
| **Aspect** | **Details** |
| Participants | 56 parents (30 female, 26 male) from 41 households (15 dyads, 26 individuals) |
| Child of focus | One per household; age 4–10 years (M = 7.12, SD = 1.85); 51 % boys |
| Country of Study | Belgium (Ghent University sample) |
| Study Duration | 14 consecutive days |
| Data Collection Methods | • Experience Sampling Method (ESM) surveys at 08:00, 18:00, 19:30 daily (reflecting on the past hour) |
| • Passive smartphone logging via Android app (timestamps of app sessions and events) |  |
| Measures | • Smartphone frequency (# sessions/hour) and duration (minutes/hour) |

• Perceived quality time (5-point Likert)  
• Child restlessness (reverse-coded calmness, 5-point scale)  
• Perceived technoference (5-point scale)  
• Perceived time displacement (5-point scale)  
• Controls: parent–child closeness, trait child phubbing, couple ID | | Analysis | Multilevel mediation (within- and between-person) with bootstrapped CIs; exploratory random‐slope models for heterogeneity |

**Summary of Key Findings**

* Between-person comparisons showed no association between parents’ average co-present smartphone frequency or duration and their perceptions of quality time or child restlessness.
* Within-person fluctuations:
  + Higher-than-usual smartphone **frequency** predicted greater perceived **technoference**.
  + Higher-than-usual smartphone **duration** predicted greater perceived **time displacement**.
* Perceived technoference within an hour was linked to **lower** parental experiences of quality time, but it did **not** predict child restlessness.
* Perceived time displacement unexpectedly predicted **higher** experiences of quality time (opposite to hypothesis) and had no effect on child restlessness.
* Mediation paths (frequency→technoference→quality time/restlessness; duration→displacement→quality time/restlessness) did not reach statistical significance.
* Significant between-person variability (heterogeneity) in within-person effects suggests these dynamics differ across individual parents.

**Limitations**

* Relatively small, convenience sample limited to Android users in Belgium, which may affect generalizability.
* Child restlessness measure (reverse-coded calmness) and time-displacement scale showed low variability, introducing floor effects.
* Reliance on self-reported ESM for perceptions; no direct observational data on parent–child interactions.
* Study period (14 days) may not capture longer‐term patterns or rare events.
* Mediation analyses may have been underpowered given the number of bootstrap repetitions and sample size.

Higher Age Group

### Parental Problematic Smartphone Use and Children’s Executive Function: The Mediating Role of Technoference and the Moderating Role of Children’s Age

**2. Authors: Xiaohui Yang** et al.

**3. Year of Publication: 2023** (Published in *Early Childhood Research Quarterly*)

**4. Research Questions**

This study investigates:

* The **association between parental problematic smartphone use** and **children’s executive function (EF)**.
* Whether **technoference** mediates the relationship between **parental smartphone use** and **children’s EF difficulties**.
* Whether **children’s age** moderates the relationship between **parental smartphone use, technoference, and EF components**.

**5. Summary of Data Collection and Methodology**

This study collected **survey data** from **472 parents** of children aged **3–9 years** in **China**. Researchers examined **parental problematic smartphone use, technoference, and children’s EF** using validated questionnaires.

**Sample Description**

|  |  |
| --- | --- |
| **Aspect** | **Details** |
| **Participants** | 472 parents |
| **Age Group of Children** | 3–9 years |
| **Country of Study** | China |
| **Data Collection Method** | Parent-reported questionnaires |
| **Analysis Method** | Mediation and moderated mediation models |

**6. Summary of Key Findings in the Context of Parental Smartphone Use & Child Development**

* **Parental problematic smartphone use was significantly correlated with children’s EF difficulties**.
* **Technoference partially mediated the relationship** between **parental smartphone use and children’s EF problems**.
* **Children’s age moderated the relationship** between **parental smartphone use, technoference, and working memory problems**.
* **Preschoolers were more affected by technoference**, while **older children showed a stronger direct link between parental smartphone use and EF difficulties**.
* **Parental smartphone use disrupted parent-child interactions**, leading to **reduced parental responsiveness and engagement**.

**7. Limitations**

* **Self-reported data**: Parent-reported assessments may introduce **bias**.
* **Sample characteristics**: Mostly **Chinese families**, limiting **generalizability**.
* **Cross-sectional design**: The study does not assess **long-term effects** of parental smartphone use.

### Does parental smartphone use predict parents’ perceptions of family life? An examination of momentary associations between parental smartphone use, parental experiences of quality time, and parental perceptions of difficult child behavior

**2. Authors: Floor Denecker et al.**

**3. Year of Publication: 2023** (Published in *Mobile Media & Communication*)

**4. Research Questions**

This study investigates:

* Whether **frequency and duration** of **parental smartphone use** in the presence of children is associated with **parents’ perceptions of quality time** and **child restlessness**.
* Whether **parental perceptions of technoference** and **time displacement** mediate the association between **smartphone use** and **parental experiences**.
* The **momentary between- and within-person associations** between **parental smartphone use** and **child behavior**.

**5. Summary of Data Collection and Methodology**

This study collected **experience sampling and smartphone log data** from **parents of children aged 4–10 years** to assess **momentary associations** between **parental smartphone use** and **child behavior**. The analysis used **multilevel mediation models** to examine interactions between **parental smartphone use**, **technoference**, **time displacement**, and **child restlessness**.

**Sample Description**

|  |  |
| --- | --- |
| **Aspect** | **Details** |
| **Participants** | 56 parents (30 female, 26 male) |
| **Age Group of Children** | 4–10 years (Mean = 7.12 years) |
| **Country of Study** | Belgium |
| **Study Period** | 14 days |
| **Data Collection** | Experience sampling & smartphone log data |
| **Observations Collected** | 1,484 observations |

**6. Summary of Key Findings in the Context of Parental Smartphone Use & Child Development**

* **No between-person associations** were found between **parental smartphone use** and **child restlessness**.
* **Within-person findings**:
  + **Smartphone frequency** predicted **greater perceptions of technoference**.
  + **Smartphone duration** predicted **time displacement**.
  + **Technoference negatively impacted parental experiences of quality time**.
  + **Time displacement unexpectedly predicted better parental experiences of quality time**.
* **Heterogeneity observed**: Effects varied across different parents, suggesting **individual differences** in how smartphone use affects family interactions.

**7. Limitations**

* **Self-reported data**: Parent-reported assessments may be **biased** or **subjective**.
* **Sample Characteristics**: Mostly **Belgian families**, limiting **generalizability**.
* **Short-term observations**: The study covered **only 14 days**, while long-term effects remain **uncertain**.

### Added

## Technoference: longitudinal associations between parent technology use, parenting stress, and child behavior problems

**Authors: Brandon T. McDaniel** , **Jenny S. Radesky**

**Year of Publication: 2018**

**Research Questions**

This study investigates:

* The **longitudinal bidirectional associations** between **parent technology use** and **child behavior**.
* Whether **parental stress mediates** the relationship between parent technology use and child behavior.
* The impact of **parental technology interference** on **child externalizing and internalizing behavior** over time.

**Summary of Data Collection and Methodology**

This study followed **183 couples** with **young children** (ages **0–5 years**, mean = **3.0 years**) over a **6-month period** through **survey-based** data collection. The analysis used **cross-lagged structural equation models** to examine interactions between **parent technology interference**, **parenting stress**, and **child behavioral outcomes**.

**Sample Description**

|  |  |
| --- | --- |
| **Aspect** | **Details** |
| **Participants** | 183 couples (mothers and fathers) |
| **Age Group of Children** | 0–5 years (Mean = 3.0 years) |
| **Country of Study** | United States |
| **Study Period** | 6 months |
| **Data Collection** | Online surveys at baseline, 1 month, 3 months, and 6 months |

**Summary of Key Findings (Parental Smartphone Use & Child Development)**

* **Bidirectional Associations Found**: Parents **stressed** by their child’s **difficult behavior** may **withdraw to technology**, increasing **parent-child technoference**.
* **Higher Technoference**: Leads to more **externalizing (tantrums, aggression)** and **withdrawal (reduced social engagement)** behaviors in children.
* **Parenting Stress as a Mediator**: Greater **child behavioral difficulties** lead to **higher parenting stress**, which subsequently results in **more technology interference** during parent-child interactions.
* **Device Use & Reduced Responsiveness**: Parents using smartphones more frequently during daily interactions **respond less** to their children's **emotional bids**, affecting **social-emotional development**.

**Limitations**:

* **Self-reported data**: Parent-reported assessments may be **biased** or **subjective**.
* **Sample Characteristics**: Mostly **high-income**, **educated**, and **predominantly Caucasian** families in the **U.S.**, limiting **generalizability**.
* **Short-term observations**: The study covered **only 6 months**, while long-term effects remain **uncertain**.

## Differential roles of problematic media use by mothers and toddlers in the relation between parenting stress and toddlers’ socioemotional development

**2. Authors: Koeun Choi**, **Yea-Ji Hong**

**3. Year of Publication: 2025**

**4. Research Questions**

This study examines:

* The role of **problematic media use** by both **mothers** and **toddlers** in the association between **maternal parenting stress** and **toddlers’ socioemotional development**.
* Whether **mothers' problematic media use** influences **toddlers' problematic media use**.
* How **parenting stress** indirectly affects **toddlers’ socioemotional development** through **media use behaviors**.

**5. Summary of Data Collection and Methodology**

This study collected data from **215 mothers** and **73 lead child care teachers** of toddlers aged **24–36 months** enrolled in **child care centers in South Korea**. Structural Equation Modeling was used to analyze interactions among **parenting stress**, **maternal problematic media use**, **toddlers' problematic media use**, and **socioemotional development**.

**Sample Description**

|  |  |
| --- | --- |
| **Aspect** | **Details** |
| **Participants** | 215 mothers & 73 child care teachers |
| **Age Group of Children** | 24–36 months (2-6 years) |
| **Country of Study** | South Korea |
| **Data Collection Method** | Surveys completed by mothers and child care teachers |
| **Study Setting** | Child care centers |

**6. Summary of Key Findings in the Context of Parental Smartphone Use & Child Development**

* **Toddlers' problematic media use** is linked to **parenting stress** and impacts **socioemotional development**.
* **Maternal parenting stress** was **positively related** to **mothers’ problematic media use**, though maternal media use was **not directly related** to toddlers’ socioemotional development.
* **Toddlers’ problematic media use** mediated the relationship between **maternal parenting stress** and **toddlers’ socioemotional development**.
* Highlights the **importance of managing screen time** in toddler years to support **healthy socioemotional development**.

**Limitations**:

* **Self-reported data**: Mothers’ assessments may introduce **bias**.
* **Cultural context**: Findings may not generalize beyond **South Korea**.
* **Cross-sectional study**: No **longitudinal** data to track **long-term effects**.

## Maternal Mobile Phone Use During Mother–Child Interactions Interferes With the Process of Establishing Joint Attention

**2. Authors: Dafna Krapf-Bar** et al.

**3. Year of Publication: 2022**

**4. Research Questions**

This study investigates:

* Whether **maternal mobile phone use** during **mother-child interactions** disrupts **joint attention (JA)** behaviors.
* How **maternal phone use** affects **infants’ ability to engage in joint attention**.
* The **likelihood** that JA behaviors will lead to **established JA episodes**.
* The **duration** of JA episodes under different conditions.

**5. Summary of Data Collection and Methodology**

This study was conducted with **114 mother-infant dyads** (infants’ mean age = **11.36 months**, **50% male**) from **Israel**. Mothers were randomly assigned to one of **three experimental conditions** within a **modified still-face paradigm**:

1. **Mobile phone disruptions condition** (mothers used their phones while interacting).
2. **Social disruptions condition** (mothers engaged in a face-to-face conversation with another adult).
3. **Undisrupted play condition** (mothers played with infants without interruptions).

Mother–infant interactions were coded for **joint attention behaviors** using a structured observational method.

**Sample Description**

|  |  |
| --- | --- |
| **Aspect** | **Details** |
| **Participants** | 114 mother-infant dyads |
| **Infant Age** | Mean = 11.36 months (Range: 10-12 months) |
| **Infant Gender** | 50% male |
| **Country of Study** | Israel |
| **Experimental Conditions** | Mobile phone disruptions, Social disruptions, Undisrupted play |
| **Methodology** | Experimental design using a modified still-face paradigm |

**6. Summary of Key Findings in the Context of Parental Smartphone Use & Child Development**

* **Increased infant JA initiations**: Infants initiated JA **more frequently** when mothers were absorbed in phone use.
* **Reduced maternal responsiveness**: Mothers were **less likely** to respond to infant JA initiations when using their phones.
* **Shorter JA episodes**: Established JA episodes were **significantly shorter** when maternal phone use was present.
* **Lower JA success rate**: Infant attempts to engage in JA were **less likely to lead to successful joint attention** episodes in the mobile phone condition.
* **Disruptions in social communication**: Maternal phone use interfered with infants' ability to practice and develop **social engagement skills**.

**Limitations**:

* **Limited sample diversity**: Mostly middle-to-upper-class Israeli families, restricting **generalizability**.
* **Short-term experimental design**: Effects of **long-term** maternal mobile phone use were not examined.
* **Controlled environment**: Findings may differ from **real-world** parent-child interactions.

## “Where are you?” An observational exploration of parental technoference in public places in the US and Israel

**2. Authors: Nelly Elias** et al.

**3. Year of Publication: 2021** (Published online: August 26, 2020)

**4. Research Questions**

This study aims to:

* Investigate the **cross-cultural manifestations** of **parental technoference** due to **mobile phone use** in **public places**.
* Examine **parent-child interactions** in **playgrounds and eateries** across **two national contexts** (US & Israel).
* Explore how **parental smartphone use** impacts **children’s emotional well-being and safety**.

**5. Summary of Data Collection and Methodology**

The study conducted **systematic observations** of **parents with children aged 2–6 years** in public spaces. Researchers observed families in **playgrounds and eateries** in **Israel and the US** to document parental smartphone use and its effects on **parent-child interactions**.

**Sample Description**

|  |  |
| --- | --- |
| **Aspect** | **Details** |
| **Participants** | Parents with children aged 2–6 years |
| **Age Group of Children** | 2–6 years |
| **Country of Study** | United States & Israel |
| **Locations** | Playgrounds and eateries |
| **Observations Conducted** | 27 in US playgrounds, 30 in US eateries; 20 in Israeli playgrounds, 38 in Israeli eateries |

**6. Summary of Key Findings in the Context of Parental Smartphone Use & Child Development**

* **High parental smartphone use** was observed in both **US** and **Israeli** settings.
* While **using smartphones**, parents **tuned out** from their children, leading to **reduced attention** and **engagement**.
* **Technoference effects**:
  + **Safety risks**: Parents failed to notice **dangerous situations** (e.g., children engaging in risky play, wandering off).
  + **Emotional impact**: Children displayed **frustration, disappointment**, and in some cases, **withdrawal** from interactions.
* **Cross-cultural comparison**:
  + **US parents** were generally **more attentive** to children attempting to leave the table.
  + **Israeli parents** were **more likely** to engage with their phones for **longer periods**.

**7. Limitations**

* **Observational study**: Findings are based on **behavioral observations**, not **self-reports** or interviews.
* **Sample diversity**: The study includes **urban settings**, but findings may not generalize to **rural areas** or **different socio-economic groups**.
* **Cross-sectional design**: The study **does not assess** the **long-term developmental impacts** of parental technoference.

## Mobile device use when caring for children 0–5 years: A naturalistic playground study

**2. Authors: Elsa Mangan** et al.

**3. Year of Publication: 2018** (Accepted: January 12, 2018)

**4. Research Questions**

This study investigates:

* **How often** parents/carers use mobile devices while supervising children aged **0–5 years** in playgrounds.
* The **types of mobile device activities** (e.g., texting, calling, photographing) parents engage in.
* Parents’ **beliefs and perceptions** regarding **mobile device use** while caring for young children.
* The **potential impact** of mobile device use on **child supervision and interaction**.

**5. Summary of Data Collection and Methodology**

The study employed a **mixed-methods approach**, combining **observations (n = 50)** and **interviews (n = 25)** conducted in **three playgrounds** in **North Coast, New South Wales, Australia**. Researchers recorded **mobile device use behavior**, types of interactions between parents/carers and children, and parents’ perspectives on phone usage in caregiving situations.

**Sample Description**

|  |  |
| --- | --- |
| **Aspect** | **Details** |
| **Participants** | 50 observed parents/carers; 25 interviewed parents |
| **Age Group of Children** | 0–5 years |
| **Country of Study** | Australia |
| **Study Location** | Three playgrounds in North Coast, NSW |
| **Observational Period** | 20 minutes per parent/carer |
| **Observation Timeframe** | June–August 2016 |
| **Data Collection Methods** | Observations & semi-structured interviews |

**6. Summary of Key Findings in the Context of Parental Smartphone Use & Child Development**

* **High prevalence of mobile device use**: **76% of observed parents/carers** engaged with their phone during the 20-minute observation period.
* **Typing-related use dominated**: **69.6%** of mobile device interactions involved texting or typing, while **23.7%** were voice-related, and **6.7%** involved photography.
* **Reduced interaction with children**: Many parents **spent less time engaging with their children** due to **frequent mobile device use**.
* **Child independence in play**: Observations showed that **47.9% of time** was spent in **child independent play**, **20.8%** involved **playground equipment interaction**, and **19.5%** had **verbal engagement** between parent and child.
* **Parental perception**: Interviews revealed that parents saw mobile device use as **necessary** for **communication, capturing moments, and personal organization**, but **acknowledged concerns** over **reduced supervision and engagement**.

**7. Limitations**

* **Self-reported biases**: Interviews relied on **parent-reported beliefs**, which may not fully reflect actual behaviors.
* **Limited diversity**: The study focused on **specific Australian playgrounds**, restricting **generalizability** to different populations or socio-economic groups.
* **Short-term study**: Findings provide **a snapshot of behaviors**, but do not track **long-term impacts** of mobile device use on child development.

### Technoference in Infant Feeding: The Impact of Maternal Digital Media Use During Breastfeeding on Maternal Attention and Mother-Infant Interactions

**2. Authors: Emma M. Mason et al.**

**3. Year of Publication: 2024** (Published in October)

**4. Research Questions**

This study investigates:

* How **maternal digital media use** during **breastfeeding** affects **maternal attention** and **mother-infant interactions**.
* Whether **maternal attention disruptions** impact **infant responsiveness** and **socioemotional growth**.
* The extent to which **maternal sensitivity to infant cues** is altered by **digital media distractions**.

**5. Summary of Data Collection and Methodology**

This study employed a **within-subject experimental design** with **25 mother-infant dyads**. Each mother breastfed her infant under **two conditions**:

1. **Digital Media Condition**: Mothers watched a **television show on a tablet** while breastfeeding.
2. **Control Condition**: Mothers listened to **classical music** at ambient levels while breastfeeding.

Video recordings were analyzed to assess **maternal attention**, **infant responsiveness**, and **interaction quality**.

**Sample Description**

|  |  |
| --- | --- |
| **Aspect** | **Details** |
| **Participants** | 25 mother-infant dyads |
| **Infant Age** | ≤ 6 months |
| **Country of Study** | United States |
| **Experimental Conditions** | Digital Media vs. Control |
| **Data Collection Method** | Video-recorded feeding sessions |
| **Analysis Method** | Behavioral coding of maternal attention and interaction quality |

**6. Summary of Key Findings in the Context of Parental Smartphone Use & Child Development**

* **Maternal attention disruptions** were **significantly higher** in the **Digital Media condition** compared to the **Control condition**.
* **Lower maternal attention** was associated with **reduced maternal sensitivity** to infant cues.
* **Infants displayed lower clarity of cues** when maternal attention was disrupted.
* **Socioemotional growth fostering** was **lower** when mothers were **less attentive** to their infants.
* **Infant responsiveness** was **negatively impacted** by maternal digital media use.

**7. Limitations**

* **Small sample size**: Only **25 dyads**, limiting **generalizability**.
* **Short-term study**: Effects of **long-term maternal digital media use** were not examined.
* **Controlled environment**: Findings may differ in **natural home settings**.

## Maternal Mobile Device Use During a Structured Parent–Child Interaction Task

**2. Authors: Jenny Radesky, MD et al.**

**3. Year of Publication: 2015** (Published in *Academic Pediatrics*)

**4. Research Questions**

This study investigates:

* The **association between maternal mobile device use** and **mother-child interactions** during a structured task.
* Whether **maternal smartphone use** affects **verbal and nonverbal interactions** with children.
* How **device use impacts parental engagement**, particularly during **unfamiliar food introductions**.

**5. Summary of Data Collection and Methodology**

This study analyzed **videotaped interactions** of **225 low-income mother-child pairs** during a **structured eating protocol**. Researchers examined **maternal verbal and nonverbal prompts** toward children while introducing **familiar and unfamiliar foods**.

**Sample Description**

|  |  |
| --- | --- |
| **Aspect** | **Details** |
| **Participants** | 225 mother-child dyads |
| **Age Group of Children** | ~6 years old |
| **Country of Study** | United States |
| **Study Setting** | Structured laboratory task |
| **Data Collection Method** | Video-recorded interactions |
| **Analysis Method** | Multivariate Poisson regression |

**6. Summary of Key Findings in the Context of Parental Smartphone Use & Child Development**

* **Maternal mobile device use was common** (23.1% of mothers used a device during the task).
* **Lower interaction levels**: Mothers who used devices initiated **fewer verbal and nonverbal interactions** with their children.
* **Greater impact during unfamiliar food introductions**: Device-using mothers showed **33% fewer verbal interactions** and **58% fewer nonverbal interactions** when introducing unfamiliar foods.
* **Reduced parental encouragement**: Mothers using devices **encouraged their children less** to try new foods.
* **Potential disruption of parent-child engagement**: Mobile device use may interfere with **social and emotional bonding** during structured interactions.

**7. Limitations**

* **Self-reported parenting style**: Device use was **not linked** to self-reported parenting style, suggesting **other factors** may influence engagement.
* **Controlled setting**: Findings may differ in **natural home environments**.
* **Short-term study**: The study does not assess **long-term developmental impacts** of parental smartphone use.

### The Influence of Difficult Child Temperament and Parenting Stress on Parental Problematic Smartphone Use in Early Childhood: A Moderated Mediation Analysis

**2. Authors: Larissa Schneebeli** et al.

**3. Year of Publication: 2025** (Published on May 27, 2025)

**4. Research Questions**

This study examines:

* The association between **difficult child temperament** and **parental problematic smartphone use**.
* Whether **parenting stress mediates** the relationship between **difficult child temperament** and **parental problematic smartphone use**.
* Whether **parental gender moderates** the association between **parenting stress** and **problematic smartphone use**.

**5. Summary of Data Collection and Methodology**

This study utilized data from **261 parents** (mothers and fathers) of **14-month-old children** in **Switzerland**. A **moderated mediation analysis** was conducted to examine the relationships between **difficult child temperament, parenting stress, and parental problematic smartphone use**.

**Sample Description**

|  |  |
| --- | --- |
| **Aspect** | **Details** |
| **Participants** | 261 parents (142 mothers, 119 fathers) |
| **Age Group of Children** | 14 months |
| **Country of Study** | Switzerland |
| **Data Collection Method** | Online questionnaire |
| **Analysis Method** | Moderated mediation analysis |

**6. Summary of Key Findings in the Context of Parental Smartphone Use & Child Development**

* **Parenting stress fully mediated** the association between **difficult child temperament** and **parental problematic smartphone use**.
* Parents who rated their child’s temperament as **more difficult** reported **higher parenting stress**, which led to **greater problematic smartphone use**.
* **Parental gender did not moderate** the association between **parenting stress** and **problematic smartphone use**.
* Findings suggest that **stress management interventions** may help reduce **problematic smartphone use** among parents.

**7. Limitations**

* **Self-reported data**: Parent-reported assessments may introduce **bias**.
* **Sample characteristics**: Mostly **Swiss families**, limiting **generalizability**.
* **Cross-sectional design**: The study does not assess **long-term effects** of parental smartphone use.

### Infants’ response to a mobile phone modified still-face paradigm: Links to maternal behaviors and beliefs regarding technoference

**2. Authors: Laura A. Stockdale** **et al.**

**3. Year of Publication: 2020** (Published in *Infancy*)

**4. Research Questions**

This study investigates:

* How **infants respond** to **parental mobile phone use** during interactions.
* Whether **technoference** (parental phone use) affects **infant emotional regulation**.
* The **impact of parental beliefs** about mobile phone use on **infant behavior**.
* Differences in **infant responses** based on **age** and **previous exposure** to technoference.

**5. Summary of Data Collection and Methodology**

This study employed a **modified still-face paradigm (SFP)** with **227 parent-infant dyads**. Infants were observed during **three phases**:

1. **Free Play (FP)** – Normal parent-infant interaction.
2. **Still-Face (SF) with Mobile Phone** – Parents used their phones, disengaging from infants.
3. **Reunion (RU)** – Parents resumed interaction.

Infant behaviors were coded for **positive and negative affect, self-comforting, object orientation, and escape behaviors**.

**Sample Description**

|  |  |
| --- | --- |
| **Aspect** | **Details** |
| **Participants** | 227 parent-infant dyads |
| **Infant Age** | 5–14 months (Mean = 8.03 months) |
| **Country of Study** | United States |
| **Study Setting** | In-home observations |
| **Data Collection Method** | Video-recorded interactions |
| **Analysis Method** | Behavioral coding of infant responses |

**6. Summary of Key Findings in the Context of Parental Smartphone Use & Child Development**

* **Infants displayed increased negative affect** during the **still-face phase** when parents were distracted by mobile phones.
* **Older infants (9+ months)** showed **higher levels of distress** across all phases compared to younger infants.
* **Higher parental technoference** was linked to **more escape behaviors** in younger infants.
* **Infants failed to return to baseline emotional states** during the reunion phase, suggesting **lasting effects** of parental phone use.
* **Parental beliefs about phone use** influenced **infant responses**, with infants of parents who frequently used phones showing **attenuated emotional reactions**.

**7. Limitations**

* **Self-reported parental behaviors** may introduce **bias**.
* **Sample characteristics**: Mostly **middle-class American families**, limiting **generalizability**.
* **Short-term study**:

### “Look at me!” Parental use of mobile phones at the playground

**2. Authors: Dafna Lemish** et al.

**3. Year of Publication: 2019** (Published in *Mobile Media & Communication*)

**4. Research Questions**

This study investigates:

* How **parents use mobile devices** while spending time with their children in playgrounds.
* The **impact of parental mobile device use** on **parent-child interaction quality**.
* How **parental mobile device use** affects **children’s safety and emotional well-being**.

**5. Summary of Data Collection and Methodology**

This study employed **ethnographic observations** of **60 families** at **two playgrounds** in the **United States**. Researchers documented **parent-child interactions**, focusing on **parental engagement levels**, **mobile device use**, and **child responses**.

**Sample Description**

|  |  |
| --- | --- |
| **Aspect** | **Details** |
| **Participants** | 60 families (46 mothers, 31 fathers, 37 boys, 33 girls) |
| **Age Group of Children** | 2–6 years |
| **Country of Study** | United States |
| **Study Locations** | Two playgrounds in New Jersey |
| **Observation Duration** | 50 hours over 27 visits |
| **Data Collection Method** | Ethnographic observations |

**6. Summary of Key Findings in the Context of Parental Smartphone Use & Child Development**

* **79% of parents used mobile devices** at least once during playground visits.
* **Parental engagement levels** varied:
  + **High engagement**: Parents actively interacted with children, rarely using phones.
  + **Divided engagement**: Parents oscillated between phone use and child interaction.
  + **Disengagement**: Parents were largely absorbed in phone use, ignoring children’s bids for attention.
* **Consequences of parental phone use**:
  + **Safety concerns**: Parents distracted by phones **failed to notice** potential dangers (e.g., risky play, falls).
  + **Emotional concerns**: Children **expressed frustration** or **withdrawal** when parents were absorbed in phone use.
* **Mobile phones were the most frequent distraction**, surpassing conversations with other adults or non-digital media.

**7. Limitations**

* **Observational study**: Findings are based on **behavioral observations**, not **self-reports** or interviews.
* **Sample diversity**: The study includes **urban settings**, but findings may not generalize to **rural areas** or **different socio-economic groups**.
* **Cross-sectional design**: The study **does not assess** the **long-term developmental impacts** of parental technoference.

### Associations between maternal smartphone use and mother-infant responsiveness: A cluster analysis of potential risk and protective factors

**2. Authors: Lisa Golds et al.**

**3. Year of Publication: 2024** (Accepted: February 26, 2024)

**4. Research Questions**

This study investigates:

* Whether **maternal smartphone use** is associated with **mother-infant responsiveness**.
* The role of **risk and protective factors** in shaping **mother-infant interactions**.
* Whether **subgroups of mother-infant dyads** can be identified based on **smartphone use and responsiveness**.

**5. Summary of Data Collection and Methodology**

This study employed a **cross-sectional survey design** with **450 mothers** in the **UK**. Researchers used **cluster analysis** to identify **patterns of smartphone use, maternal mental health, infant social-emotional development, and mother-infant responsiveness**.

**Sample Description**

|  |  |
| --- | --- |
| **Aspect** | **Details** |
| **Participants** | 450 mothers |
| **Age Group of Children** | 3–9 months |
| **Country of Study** | United Kingdom |
| **Data Collection Method** | Online survey |
| **Analysis Method** | Cluster analysis |

**6. Summary of Key Findings in the Context of Parental Smartphone Use & Child Development**

* **Three clusters identified**:
  1. **Infant at risk**: High **maternal smartphone use**, **low mother-infant responsiveness**, and **high infant social-emotional concerns**.
  2. **Mother at risk**: High **maternal smartphone use**, **low mother-infant responsiveness**, and **high maternal depressive, anxiety, and stress symptoms**.
  3. **Low risk**: Low **maternal smartphone use**, **high mother-infant responsiveness**, and **low infant social-emotional concerns**.
* **Technoference negatively impacts mother-infant interactions**, particularly in **high-risk dyads**.
* **Maternal mental health and infant development concerns** play a role in **smartphone use patterns**.

**7. Limitations**

* **Self-reported data**: Mothers’ assessments may introduce **bias**.
* **Sample characteristics**: Mostly **White, partnered mothers**, limiting **generalizability**.
* **Cross-sectional design**: The study does not assess **long-term effects** of maternal smartphone use.

### Technoference: Parent Distraction With Technology and Associations With Child Behavior Problems

**2. Authors: Brandon T. McDaniel** et al.

**3. Year of Publication: 2018** (Published in *Child Development*)

**4. Research Questions**

This study investigates:

* Whether **parental problematic technology use** is associated with **technology-based interruptions** in parent-child interactions, termed **technoference**.
* Whether **technoference** is associated with **child behavior problems**.
* The **directionality** of these associations and their potential **transactional processes**.

**5. Summary of Data Collection and Methodology**

This study collected **parent reports** from **170 U.S. families** with children aged **3.04 years (mean age)**. Researchers used **actor-partner interdependence modeling** to examine the relationships between **parental digital technology use, technoference, and child behavioral outcomes**.

**Sample Description**

|  |  |
| --- | --- |
| **Aspect** | **Details** |
| **Participants** | 170 families (168 mothers, 165 fathers) |
| **Age Group of Children** | Mean = 3.04 years (Range: 1–5.5 years) |
| **Country of Study** | United States |
| **Data Collection Method** | Parent-reported surveys |
| **Analysis Method** | Actor-partner interdependence modeling |

**6. Summary of Key Findings in the Context of Parental Smartphone Use & Child Development**

* **Higher parental problematic technology use** predicted **greater technoference** in **mother-child and father-child interactions**.
* **Maternal technoference** was associated with **higher reports of child externalizing (tantrums, aggression) and internalizing (withdrawal, anxiety) behaviors**.
* **Fathers' problematic technology use** also contributed to **technoference**, but **father-child technoference** did not significantly predict **child behavior problems**.
* **Transactional processes** may exist, where **child behavioral difficulties** lead to **higher parenting stress**, which in turn results in **more technology interference**.

**7. Limitations**

* **Self-reported data**: Parent-reported assessments may introduce **bias**.
* **Sample characteristics**: Mostly **middle-class, Caucasian families**, limiting **generalizability**.
* **Cross-sectional design**: The study does not assess **long-term effects** of parental smartphone use.

### Examining the Associations Between Smartphone Use and Mother–Infant Bonding and Family Functioning: A Survey Design

**2. Authors: Reem A. Ali** et al.

**3. Year of Publication: 2020** (Published in *Nursing & Health Sciences*)

**4. Research Questions**

This study investigates:

* The **prevalence** of excessive smartphone use among **mothers of infants**.
* The **associations** between **smartphone use**, **mother-infant bonding**, **maternal mental health**, and **family functioning**.
* The **predictive value** of demographic and psychological variables in determining **smartphone use levels**.

**5. Summary of Data Collection and Methodology**

This study employed a **descriptive correlational cross-sectional survey design** with **114 mothers** of **infants** in **Jordan**. Participants completed **face-to-face interviews** and a **web-based questionnaire** assessing **smartphone use, mother-infant bonding, maternal mental health, and family functioning**.

**Sample Description**

|  |  |
| --- | --- |
| **Aspect** | **Details** |
| **Participants** | 114 mothers |
| **Age Group of Children** | Infants (≤12 months) |
| **Country of Study** | Jordan |
| **Data Collection Method** | Face-to-face interviews & web-based questionnaire |
| **Study Period** | October 2016 – January 2017 |

**6. Summary of Key Findings in the Context of Parental Smartphone Use & Child Development**

* **16% of mothers reported using smartphones for 5–14 hours per day**.
* **6.7% identified themselves as smartphone addicts**.
* **Excessive smartphone use was negatively associated with family functioning**.
* **No significant associations** were found between **smartphone use and mother-infant bonding or maternal mental health**.
* **Raising awareness** about the potential impact of excessive smartphone use on **family dynamics** is recommended.

**7. Limitations**

* **Self-reported data**: Mothers’ assessments may introduce **bias**.
* **Sample characteristics**: Mostly **Jordanian mothers**, limiting **generalizability**.
* **Cross-sectional design**: The study does not assess **long-term effects** of maternal smartphone use.

### The Relationship Between Maternal Problematic Mobile Phone Use and Hyperactive Behavior in Preschool Children: The Moderating Effect of Family Parenting Support on Chain Mediation

**2. Authors: Dongqing Yu** et al.

**3. Year of Publication: 2024** (Published on **July 10, 2024**)

**4. Research Questions**

This study investigates:

* Whether **maternal problematic mobile phone use** predicts **hyperactive behavior** in preschool children.
* The **mediating roles** of **work-family conflict** and **parent-child interaction disorder** in this relationship.
* The **moderating effect** of **family parenting support** on the impact of **parent-child interaction disorder** on preschoolers’ hyperactive behavior.

**5. Summary of Data Collection and Methodology**

This study surveyed **924 Chinese mothers** and their **preschool-aged children** to examine the **impact of maternal problematic mobile phone use** on **child hyperactivity**. Researchers used **moderated chain mediation analysis** to explore the **indirect effects** of **work-family conflict** and **parent-child interaction disorder**.

**Sample Description**

|  |  |
| --- | --- |
| **Aspect** | **Details** |
| **Participants** | 924 mothers and their preschool-aged children |
| **Age Group of Children** | 3–6 years (Mean = 4.26 years) |
| **Country of Study** | China |
| **Data Collection Method** | Surveys |
| **Analysis Method** | Moderated chain mediation analysis |

**6. Summary of Key Findings in the Context of Parental Smartphone Use & Child Development**

* **Maternal problematic mobile phone use significantly predicts preschoolers’ hyperactive behavior**.
* **Work-family conflict and parent-child interaction disorder** act as **chain mediators** in this relationship.
* **Parenting support moderates the impact** of **parent-child interaction disorder** on **child hyperactivity**.
* **Boys exhibit significantly higher levels of hyperactive behavior than girls**.
* **Children from single-parent families** and **mothers with lower education levels** show **higher hyperactivity scores**.

**7. Limitations**

* **Self-reported data**: Mothers’ assessments may introduce **bias**.
* **Sample characteristics**: Mostly **Chinese families**, limiting **generalizability**.
* **Cross-sectional design**: The study does not assess **long-term effects** of maternal smartphone use.

### Parental Smartphone Addiction and Social Avoidance Among Chinese Preschool Migrant Children: Mediating Effects of Parent-Child Conflict

**2. Authors: Jingjing Zhu et al.**

**3. Year of Publication: 2025** (Published online: March 17, 2025)

**4. Research Questions**

This study investigates:

* The **relationship between parental smartphone addiction** and **social avoidance** among **Chinese preschool migrant children**.
* Whether **parent-child conflict** mediates the association between **parental smartphone addiction** and **children’s social avoidance**.
* The **distinct impacts** of **maternal and paternal smartphone addiction** on **social avoidance** in preschool migrant children.

**5. Summary of Data Collection and Methodology**

This study surveyed **158 parent-child dyads** in **Shanghai, China**. Parents rated their **own smartphone addiction** and **parent-child conflict**, while mothers reported on **children’s social avoidance**. The analysis used **structural equation modeling** to examine the mediating role of **parent-child conflict**.

**Sample Description**

|  |  |
| --- | --- |
| **Aspect** | **Details** |
| **Participants** | 158 parent-child dyads |
| **Age Group of Children** | 32–79 months (Mean = 54.96 months), 2.5-6.5 years |
| **Country of Study** | China |
| **Data Collection Method** | Parent-reported surveys |
| **Analysis Method** | Structural equation modeling |

**6. Summary of Key Findings in the Context of Parental Smartphone Use & Child Development**

* **Maternal smartphone addiction significantly predicted children’s social avoidance**.
* **Mother-child conflict fully mediated** the relationship between **maternal smartphone addiction** and **children’s social avoidance**.
* **No significant effects** of **paternal smartphone addiction** were observed.
* **Parental smartphone addiction negatively impacts parent-child interactions**, leading to **higher social avoidance behaviors** in children.

**7. Limitations**

* **Self-reported data**: Parent-reported assessments may introduce **bias**.
* **Sample characteristics**: Mostly **Chinese migrant families**, limiting **generalizability**.
* **Cross-sectional design**: The study does not assess **long-term effects** of parental smartphone use.

### Technology Interference in the Parenting of Young Children: Implications for Mothers’ Perceptions of Coparenting

**2. Authors: Brandon T. McDaniel** et al.

**3. Year of Publication: 2016** (Published online: June 2, 2016)

**4. Research Questions**

This study examines:

* The **frequency** of **technology interference** in **coparenting relationships** during early childhood.
* How **technology interference** affects **various parenting domains** (e.g., bedtime, mealtime, playtime).
* The **associations** between **technology interference** and **mothers’ perceptions of coparenting quality**.

**5. Summary of Data Collection and Methodology**

This study surveyed **203 married/cohabiting mothers** of **young children (≤3 years old)** in the **United States**. Researchers examined **technology interference in coparenting interactions** and **parenting domains** using **self-reported questionnaires**.

**Sample Description**

|  |  |
| --- | --- |
| **Aspect** | **Details** |
| **Participants** | 203 married/cohabiting mothers |
| **Age Group of Children** | ≤3 years (Mean = 11.74 months) |
| **Country of Study** | United States |
| **Data Collection Method** | Online survey |
| **Analysis Method** | Hierarchical linear regression |

**6. Summary of Key Findings in the Context of Parental Smartphone Use & Child Development**

* **96% of mothers reported technology interference** in their coparenting interactions.
* **Smartphones were the most frequent source of interference**, followed by **computers, television, and tablets**.
* **Technology interference was most common during playtime (65% of mothers reported interruptions)**.
* **Higher technology interference was associated with lower coparenting quality**, even after controlling for **relationship satisfaction and depressive symptoms**.
* **Mothers who experienced more technology interference reported greater frustration** and **lower coordination with their partners** in parenting.

**7. Limitations**

* **Self-reported data**: Mothers’ assessments may introduce **bias**.
* **Sample characteristics**: Mostly **middle-class, Caucasian families**, limiting **generalizability**.
* **Cross-sectional design**: The study does not assess **long-term effects** of parental smartphone use.