

## Research Article

# An Initial Investigation into Parental Perceptions Surrounding the Impact of Mobile Media Use on Child Behavior and Executive Functioning

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Children demonstrate increasing early engagement with mobile media facilitated by its portability and interactivity. Parents are known to employ a range of mediation strategies for mobile media use but continue to have limited awareness about the impact of mobile media on their child's executive functioning. Mobile media use has previously been shown to be negatively correlated with the executive functioning development of a child; however, little is known of how parents approach their child's mobile media use. This study employed a survey design ( $N = 281$ ) to examine how parents access information related to mobile media and document their perspectives about the impact of mobile media on their child's behavior and executive functioning. Correlational analyses and cooccurrence graphs showed that parents implement several mediation strategies but rarely access guidelines on mobile media use. A confirmatory factor analysis examined the model fit for four latent constructs of the Behavior Rating Inventory of Executive Function (BRIEF®), which included the Inhibit, Emotional Control, Initiate, and Working Memory scales. Structural equation modelling substantiated the association between parental perception of negative impacts of mobile media related to their child's behavior, academics, and/or attention and a lower observed executive functioning. Overall, these findings suggest that parents recognize the negative impacts of mobile media on their child's behavior, and this is associated with how they see the development of their child's executive functioning. The results emphasize the importance of educating parents as to the role of mobile media in shaping their child's behavior and associated executive functions.

## 1. Introduction

Mobile media devices have increased in affordability and accessibility, making them commonplace in the home. Mobile media devices encompass mobile phones, tablets, and gaming consoles, and they are often connected to the internet. Increasingly, children choose to spend time on these devices rather than watch television due to their mobility, ease of use, and interactive capability [1]. This leaves parents and caregivers as the primary influencers to enhance, limit, and moderate digital technology access, both in terms of screen time and content [2], as children do not

understand the purpose and practice of technology use in the same way as adults [3]. Parents' own media use and their perceptions and attitudes towards mobile media may influence how devices are used within the home [4], highlighting the importance of better understanding their experiences of mobile media and how it influences parenting practices.

Research into the risks and benefits of the interactions between screen time and appropriate content in the context of technology use by young children has increased with systematic reviews providing recommendations or guidelines around appropriate use of mobile media devices for young children [5, 6]. However, these guidelines are mainly

directed to health officials, counsellors, and physicians with little information filtering to parents, and often, the messaging that does reach them can be contradictory [7, 8].

Today's parents did not experience mobile media devices as young children, so they must learn to navigate this novel landscape to guide their children's screen time, content, and technology access. There are currently media resources available; however, not all carry up-to-date information. As well as accessing an out-of-date resource, two sources of information can conflict in their advice and result in parental practices that are confusing and inconsistent [8]. For example, Straker and colleagues [8] highlight the Australian Early Learning Framework [9], which promotes the inclusion of digital technology in early childhood education, yet the Australian 24-Hour Movement Guidelines for the Early Years [6] do not recommend any screen time for children under two years of age and no more than one hour for children 2-5 years of age. Parental practices around mobile media use in young children need to be consistent and well informed through evidence-based research which is underpinned by theories related to child development.

Based on Bronfenbrenner's [10] ecological systems theory, children develop within a complex system of relationships influenced by interactions within their proximal environment (microsystem) as well as between interactions within nested environmental influences. The microsystem consists of the closest connections to the child encompassing family, specifically parents. Subsequently, parent decisions significantly impact the child's developmental outcomes [11]. The set of parental interactions and behaviors that influence children's screen use, commonly known as *screen media parenting practices* [12–14], refers to any parent's strategy to shield or redirect their child's media exposure. Ochoa and Reich [15] found that parents believe that they can ensure that their child primarily benefits from using a mobile media device by using mediation strategies. Parental mediation varies significantly, with households mostly attempting to employ some restrictive technique which can encompass reduced time or redirection from entertainment to educational content [7, 16, 17]. Parents concerned with media effects are more likely to employ strategies to mediate or redirect their child's media use [18, 19]. Most parents report limiting access and use of technology in their homes [18, 20–22]. Previous research has a focus on parents restricting media to minimize exposure to risks [23]. These restrictive parenting practices are often in response to perceived societal messaging that screens are harmful, yet this is often not the case [7, 24]. Whilst many parents report the use of restrictive strategies, previous research has indicated difficulties in following through with these boundary settings [25] especially as children get older and assert greater independence [26].

Some research suggests that parents become increasingly permissive with their digital parenting practices, as a child grows older [27], and that parents of older children may exhibit less control and voice less concern about screen media [28]. However, limited information can be found regarding the impact of maternal and paternal ages on their child's screen media parenting practices. Whilst Symons

et al. [29] found that older mothers reported using less supervision with older adolescents, broadly speaking, a parent's age did not play a significant role in mediation practices around screen time or content.

Although some parents do not allow their young children access to technology [30–32], other parents view digital technology positively and welcome household access to learning-based applications [2, 21]. However, with access comes increased tensions around enforcing family rules related to media content and moderating access [25, 33]. Notably in 2017, 62% of Australian parents reported experiencing family conflict due to screen-based devices [34]. Additionally, recent findings indicate that 65% of Australian parents agreed that using digital technologies caused friction in the home [35]. Interestingly, parents experienced more conflict over their child's time using mobile media rather than the media content itself and sought guidance on the potential benefits or adverse effects of their children's use of mobile media [36]. Alongside modelling their own use of mobile devices within the family [37], certain parenting practices may unwittingly reinforce poor behavior [38]. For example, a child may demand a device outside of agreed family protocols, and a parent may concede to reduce the child's negative behaviors, thus positively reinforcing the child's initial behavior [39].

Parents report feeling pressure in maintaining the balance between screen time and other activities [40]. They report an internal conflict between restricting screen time and wanting their child to be digitally literate [40]. Parents with high personal use of mobile media show more positive attitudes towards their child's access, and their children are more likely to spend time on devices [4, 41]. Many parents believe the introduction of regular screen time is necessary to increase their child's digital literacy and future success [39, 42]. Parents also report the functional use of screens as a "virtual babysitter" [3, 43] and as a positive reinforcer for desired behaviors [40, 44]. The ubiquitous nature of technology and its increasing presence in daily life means the primary challenge for parents is striking the appropriate balance for their child despite conflicting directions regarding what the right balance is [8]. The dynamic and expeditious nature of technology has meant parents have found it difficult to keep up and to pivot their parenting practices to align with new information [42, 45]. Notably, many parents fear their child will miss out on digital skills or educational opportunities if they are denied access to technology [2]. On the flip side, parents worry that too much technology use will negatively affect their child's development [7].

A review of literature regarding children's access to the internet by Danovitch [46] highlights the importance of better understanding children's cognitive functions and learning behaviors in an evolving technology space. Over the last two decades, there has been a rapid rise in parents' understanding about the link between a child's screen time and their child's development [2, 47], but what that link means to their parental practices is less clear. The screen time-child development link can be examined in terms of the child's executive functioning, that is, their related but distinct abilities to "direct and control goal-oriented cognitive,

behavioral and emotional functioning” ([48], p. 249) to shape children’s behavioral, cognitive, and social-emotional development [49, 50]. Excessive television exposure at a young age has been found to slow the development of executive functioning [51–54]. Researchers have consistently found that children who spent long hours viewing television demonstrated poorer executive functioning [55, 56], including attention/hyperactivity difficulties and later conduct problems [57, 58]. However, a recent systematic review indicates that there has been limited research on the impact of the newer forms of mobile technology on aspects of executive functioning for children [59]. To date, one longitudinal study in the United Kingdom indicates that mobile media device use by toddlers can affect the development of executive functioning as children get older [60]. Notably, the development of executive functioning is exponential during the ages of three to five years, so this is the vulnerable time when early screen use may have a negative impact on later executive functioning [60, 61]. Indeed, further research is needed to disentangle how parents navigate their children’s screen time and understand their perception of how mobile media use affects their child’s executive functioning.

## 2. Present Study

This research is an initial investigation into parents’ perceptions and existing knowledge of mobile media use among children. It also explores where support is sourced and how it is utilized to mediate mobile media access and any perceived associations between their child’s mobile media use behavior and executive functioning. Parents can use this information to inform their screen media parenting practices.

### 2.1. Method

**2.1.1. Materials and Procedure.** Data was collected from a survey whereby parents of school-aged children (4-17 years old) were recruited via a unique online link using the online survey platform Qualtrics XM. An advertisement was placed on social media platforms including Facebook and Twitter and promoted within the community, with participation being voluntary. The survey link was open from February to April 2021. Ethical approval was obtained from the University Human Research Ethics Committee, number (2020-02009). Participants gave informed consent after being provided with information about the study, including that data would be deidentified, anonymous, and confidential.

**2.1.2. Participants.** The sample consisted of 281 parents/caregivers. There were 267 (95%) females and 13 (4.5%) males, and one participant did not indicate gender. Most parents ranged in age from 31 to 40 years (45%), followed by 41-50 years (40%). Predominantly, participants were from Western Australia (71.9%), whilst the remaining participants were located elsewhere in Australia (21.4%) or outside of Australia (6.4%). The most commonly reported highest level of education achieved was a bachelor’s degree (38%), followed by high school graduates (18%). The most frequently reported annual household income bracket was \$100,000-\$200,000 (39%), followed by more than \$200,000 (23%).

The survey asked questions related to demographics and children’s use of mobile media in the home. Survey questions were based on previous research conducted by The Royal Children’s Hospital Melbourne (RCHM) [34] adapted to suit the requirements of this research. There were 21 participants excluded as they indicated that their school-aged child did not use or access mobile media in the home; therefore, no further information was collected. Additionally, 47 participants were excluded from the original sample as these participants did not complete questions past the demographics. The final sample consisted of 213 participants, whereby inferential analysis, confirmatory factor analysis, and structural equation modelling were conducted.

### 2.2. Measures

**2.2.1. Descriptives.** The survey included demographic data: identified gender, parent’s age, home location, highest level of education completed, and annual household income. Participants were also asked how many children they had and the children’s ages. Participants were then asked to respond to all subsequent questions in reference to just one child.

**2.2.2. Parental Perceptions.** To determine children’s access to mobile media devices, parents were asked to indicate which mobile media device was used in the home. Parents were asked to estimate the average amount of hours their child spent using mobile media on a typical weekend. Responses were given via an interactive sliding scale of the number of hours.

Parents were asked to reflect on the past month and report how often they had experienced conflict, tension, or disagreement between family members about the use of mobile media. Response options ranged from 1 (*Never*) to 5 (*Always*).

Parents indicated how confident they were in their ability to know how much screen time was appropriate. Response options ranged from 1 (*Very confident*) to 4 (*Not at all confident*). Parents were also asked to indicate if they had accessed parenting advice regarding screen time, selecting all that apply from a list: general practitioner (GP-doctor) or other medical professional, social media sites, parenting websites or blogs, other parents, teachers, books/magazines, and others.

To examine screen media parental practice mediation strategies, parents were asked if they had spoken with their child in the past month about what uses they have for their mobile media. Response options were “Yes,” “No,” and “Not sure.” Parents were asked to indicate from a number of common mediation strategies either “Yes, I do this” or “No, I do not do this.” Examples of strategies listed included the following: “Check the websites my child visits or the mobile apps they use” and “Limit the length of time my child can use screens.”

Thirdly, to examine further screen media parental practices related to difficulties or tension in the home, parents were asked if they had difficulty enforcing rules and restrictions about the amount of time their child used mobile media and what their child could see and do on mobile media. Response options were “Yes,” “No,” and “Unsure.”

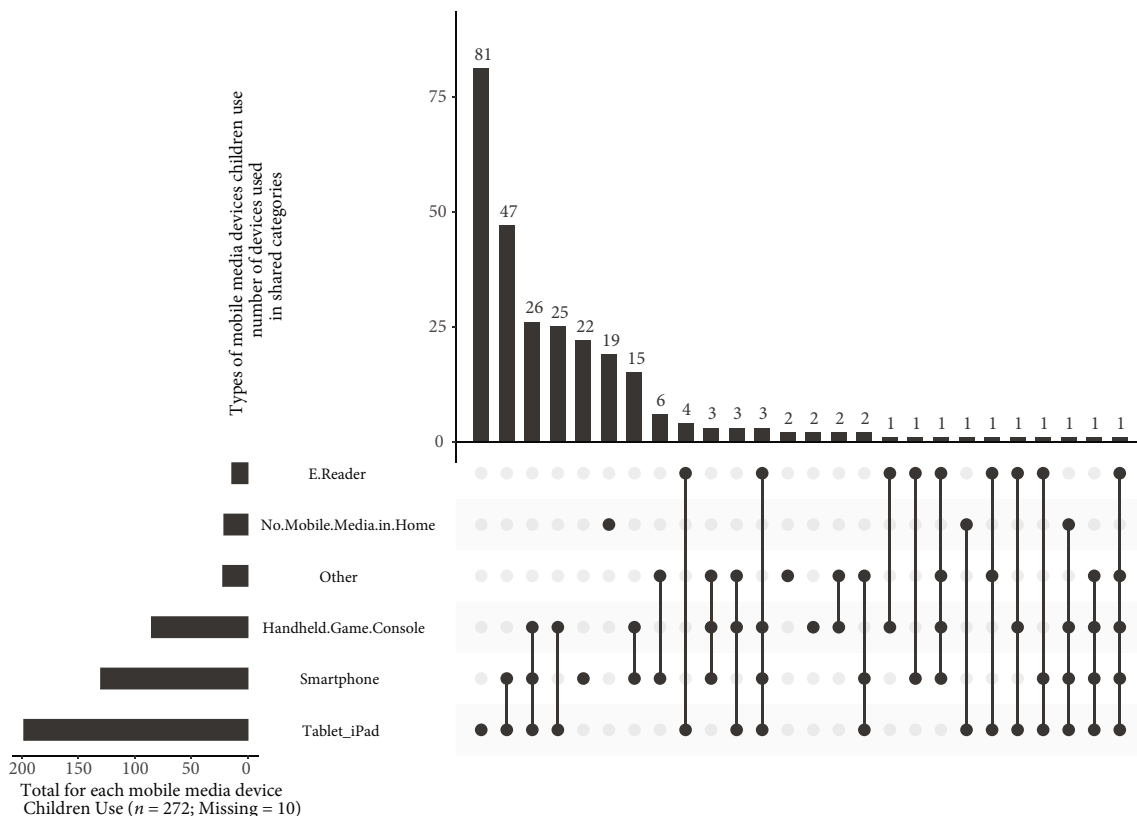


FIGURE 1: Cooccurrence of child's mobile media use in the home.

2.2.3. *Negative Impacts.* Parents were asked to rate their agreement with a series of statements about mobile media use by their child and the possible observed impact on their child in areas such as behavior, attention, and academic performance. Examples of statements include “I feel that mobile media has a negative impact on my child’s behavior,” “I feel that mobile media has a negative impact on my child’s academic performance,” and “I feel that mobile media has a negative impact on my child’s general attention.” Responses were made using a five-point Likert scale from 1 (*Strongly agree*) to 5 (*Strongly disagree*).

2.2.4. *Behavior Rating Inventory of Executive Function.* Participants were asked a sequence of questions based on the Behavior Rating Inventory of Executive Function (BRIEF®) parent questionnaire regarding their child’s observed executive functioning and behaviors [62]. Items were measured using a three-point scale ranging from 1 (*Agree*) to 3 (*Disagree*). Four scales were utilized from the BRIEF® and had acceptable reliability ( $\alpha = 0.62 - 0.79$ ). Confirmatory factor analysis for the selected four latent constructs within the BRIEF® included the following: (a) *Inhibit* which pertains to a child’s inhibitory control and impulsivity, (b) *Emotional Control* pertains to the impact of executive functioning on the child’s emotional expression, (c) *Working Memory* encompasses a child’s ability to hold information when completing a task, and (d) *Initiate* reflects a child’s ability to begin a task or activity.

2.3. *Mobile Media Use Patterns.* Participants were asked to indicate all the combinations of types of mobile media their child used within the home. As the respondents indicated all that applied to their child the pattern of use is displayed in an *Upset* plot ([63]; <https://upset.app/>) which is an alternative to the Venn diagram. This type of plot displays intersecting or cooccurring data within the observation sets as shown in Figures 1–3. Figure 1 shows the cooccurrence of a child’s mobile media use in the home. The total size of each set of observations is represented on the left bar plot. The joined dots within the bottom plot represent every possible intersection of these observations, and their occurrence is shown in the top bar plot. Therefore, each vertical bar represents the number of children in the sample who had the combination of devices represented by the joined dots below.

The most common device used by children was the tablet/iPad (72.8%) with 30% only accessing the tablet/iPad and the rest of the children who used a tablet/iPad did so in conjunction with other devices (see Figure 1); for example, 29.8% of children used the tablet/iPad in addition to a smartphone. Nearly half the children (47.4%) used a smartphone either alone or in conjunction with other devices. Over half of respondents (61%) indicated their child used mobile media for up to four hours on a typical weekend, with less reporting five or more hours (37.6%).

Correlational analysis found no significant relationship between a parent’s education status, household income, number of children in the family, the number of hours a

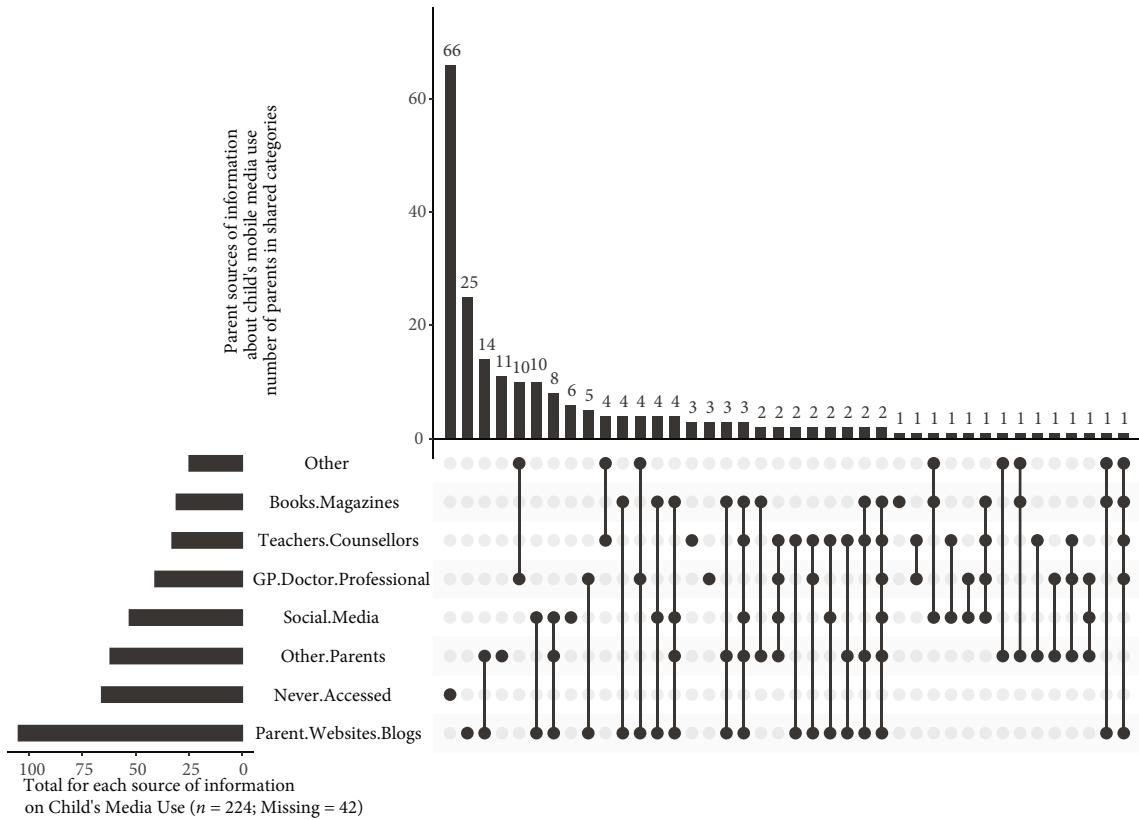


FIGURE 2: Where parents sourced information about their child’s mobile media use.

child spends on mobile media on the weekend or mobile media use before bedtime. A significant association was found between the age of parents and hours of using mobile media on the weekend. If parents were older, then this was associated with their child spending more time on mobile media on the weekend ( $\tau_b = .19, p < .001$ ). Older children also spent more hours on mobile media on the weekend ( $\tau_b = .31, p < .001$ ). On average, parents reported that their children spent 4.2 hours (SD = 3.0) using mobile media on the weekends.

**2.4. Sources of Information for Parents about Mobile Media.**

Participants reported if and where they accessed parenting advice or guidelines about screen time and mobile media use. Figure 2 shows the cooccurrence of parent reported sources of information on mobile media. The total size of each set of observations is represented on the left bar plot. The joined dots within the bottom plot represent every possible intersection of these observations, and their occurrence is shown in the top bar plot. Therefore, each vertical bar represents the number of parents in the sample who had the combination of information sources represented by the joined dots below.

Nearly one-third of the parents (29.2%) indicated that they never access information about their child’s mobile media use (see Figure 2). Parent websites and blogs were the most popular source of information, with most parents

accessing their information about media use from more than one source (see Figure 2).

**2.5. Parental Mediation of Their Child’s Mobile Media Use.**

The most common mediation strategy employed was limiting the length of time a child could use their screen (69.5%). Other common mediation strategies included a conversation with a child about their mobile media use in the past month (68.1%), checking the websites or applications that their child visits (66%), taking a mobile media device away as punishment (58.5%), and parental controls within the device or internet (52.5%).

**2.6. Parental Confidence, Child Behavior, and Family Conflict.**

Parents were asked about their confidence in their ability to know how much screen time is appropriate for their child and their experience of conflict in relation to mobile media (see Table 1). Parents rated their agreement with a series of statements about mobile media and the possible observed impact on their child in areas such as behavior, attention, and academic performance (see Figure 3). Figure 3 shows the cooccurrence of parent perceptions of their child’s negative experiences with mobile media. The total size of each set of observations is represented on the left bar plot. The joined dots within the bottom plot represent every possible intersection of these observations, and their occurrence is shown in the top bar plot. Therefore, each

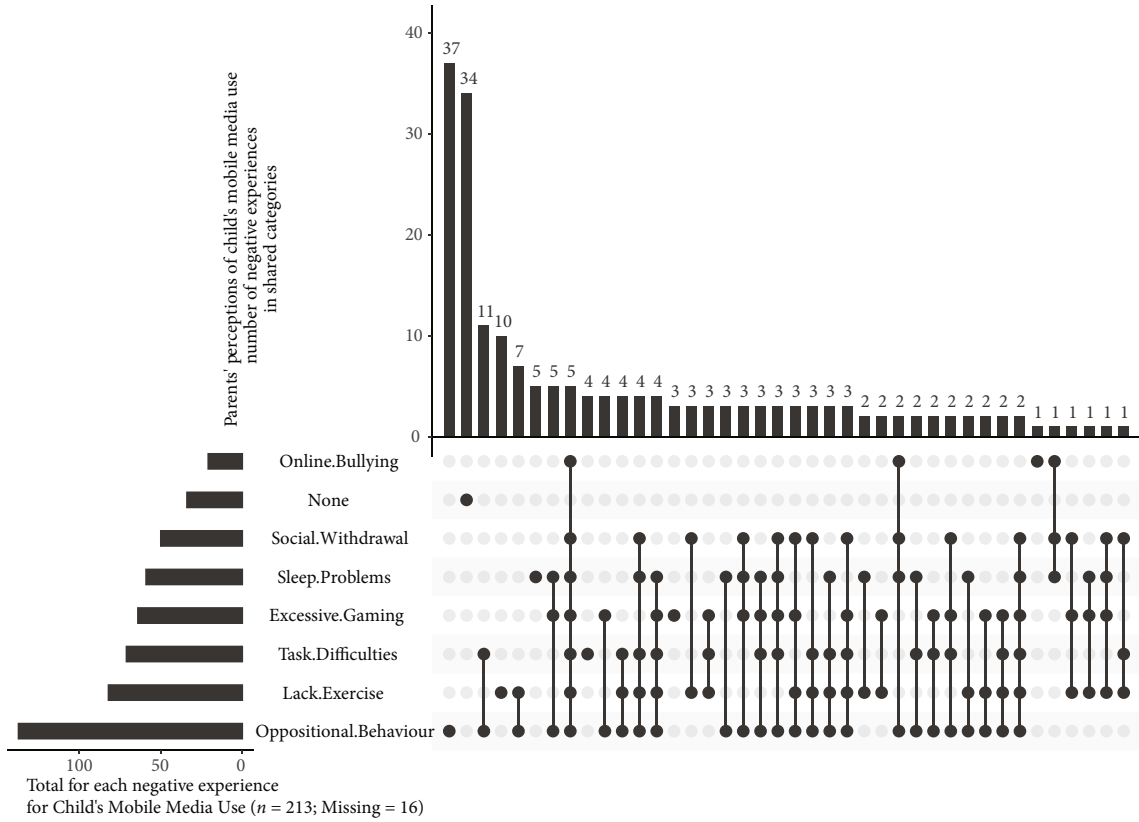


FIGURE 3: Parent perceptions of their child's negative experiences with mobile media use.

TABLE 1: Frequencies of parent confidence and conflict.

Variable	Frequency	Percent	Cumulative percent
<i>Parent confidence</i>			
Very confident	62	27.4%	27.4%
Somewhat confident	106	46.9%	74.3%
Not too confident	48	21.2%	95.6%
Not at all confident	10	4.4%	100%
<i>Conflict between family</i>			
Never	53	24.9%	24.9%
Sometimes	121	56.8%	81.7%
About half the time	19	8.9%	90.6%
Most of the time	16	7.5%	98.1%
Always	4	1.9%	100%

Note: parent confidence (N = 226), conflict between family (N = 213).

vertical bar represents the number of parents in the sample who had the combination of reported negative experiences represented by the joined dots below.

2.7. Behavior Rating Inventory of Executive Function. Inter-factor correlations for latent constructs and the parental perceptions of negative impacts of mobile media on behavior, academic performance, and attention are presented in Table 2. Emotional Control scale was strongly correlated

with perceived negative impact of mobile media on behavior ( $\tau_b = .46, p < .001$ ) and attention ( $\tau_b = .32, p < .001$ ).

2.8. Confirmatory Factor Analysis—BRIEF. Confirmatory factor analysis for the four constructs in the BRIEF indicated a good fit of the measurement model ( $\chi^2_{(48, n=213)} = 67.63, p = .032, CFI = .98, RMSEA = .04, 90\% CI [.13, .07], SRMR = .04$ ). All items loaded at or above .55 to the latent factors.

2.9. Structural Equation Modelling. The recursive structural equation model was developed to explore the parents' perceptions of their child's mobile media use behavior and their executive functioning. This model (see standardized estimates in Figure 4) indicated a good fit:  $\chi^2_{(80, N=213)} = 113.33, p = .01, CFI = .96, TLI = .94, RMSEA = .04, 90\% CI [.02, .06]$ , and  $SRMR = .04$  (see Figure 4 for standardized path coefficients). Relevant covariates were included in the original model; age of parent, household income, parent education level, age of child, number of children in the family, number of hours spent on mobile media on the weekend, and whether mobile media was used in the hour before bedtime were initially included in the model. However, only child's age had a significant association with the BRIEF constructs, so this variable was retained in the final model, and the others were removed for good model fit.

There was a significant positive association between the observed parent observation of mobile media's negative

TABLE 2: Parent observations of Executive Functions and Impact of Mobile Media on Behavior, Academic Performance and Attention: Correlations and Descriptive Statistics.

Variables	Inhibit	Emotional Control	Initiate	Working Memory	Mean	Standard Deviation	Range
Negative impact on behavior	.32***	.46***	.38***	.24**	2.69	1.16	1-5
Negative impact on academic performance	.20*	.24**	.49***	.36***	3.41	1.17	1-5
Negative impact on attention	.27***	.32***	.41***	.38***	2.96	1.13	1-5
Range	1-3	1-3	1-3	1-3			

Note: (N = 213) \*p < .05, \*\*p < .01, \*\*\*p < .001 (2-tailed).

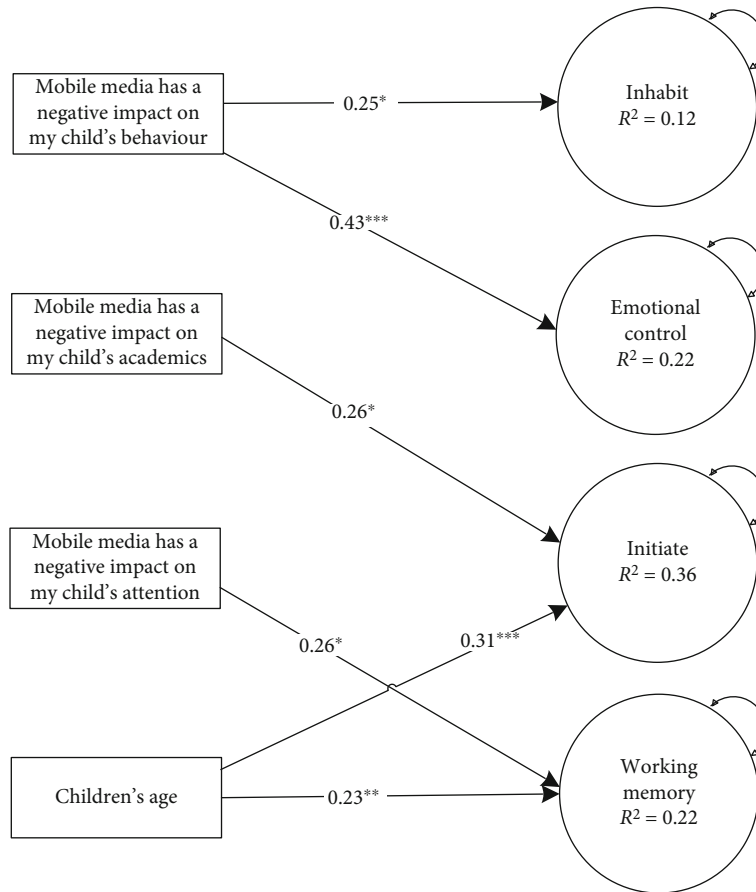


FIGURE 4: Structural model with standardized estimates for Inhibit, Emotional Control, Initiate, and Working Memory. Note:  $\chi^2(80, N=213) = 113.33, p = .01, CFI = .96, TLI = .94, RMSEA = .04, 90\% CI [.02, .06]; R^2 =$  variance explained in the model; Range for observed variables, 1 = *Strongly disagree*, 5 = *Strongly agree*.

impact on their child’s behavior, academics, and attention and selected latent factors of executive functioning: Inhibit, Emotional Control, Initiate, and Working Memory (Figure 4). In particular, there was a significant positive association between the age of the child and executive functioning factors of Initiate and Working Memory. Older children had, on average, higher reported levels of needing to be told to begin a task, trouble getting started on tasks, and difficulty showing initiative. Children older in age also had, on average, higher reported levels of remembering only parts of a task, having a short attention span, and difficulty concentrating on tasks, as indicators for the executive function of Working Memory. Notably, if parents are perceiving that mobile media has high levels, on average, of negative impact on their child’s behavior

then they perceive that their child, on average, has increased outbursts, triggers, and mood changes. Their perceptions of behavior explain 22% of their perceptions in Emotional Control. The perception that their child’s mobile media negatively impacts upon their academics explains 36% of their thoughts about whether their child can initiate tasks.

### 3. Discussion

The purpose of this study was to investigate childhood mobile media practices, parent knowledge, and observations of these mobile media patterns in their school-age children. Consistent with our predictions, results confirmed that many mobile media devices are used by children in the

home, in particular tablets and iPads, and that often more than one device is being used, e.g., a tablet in combination with a smartphone and/or a handheld gaming device.

Older children were found to spend more hours on mobile media on the weekend. This supports previous research that identifies a positive correlation between a child's age and their mobile media use [64]. Our data also showed that the older the age of the parent, the more time their child spent using mobile media on the weekend. Notably, these results align with suggestions that older parents may be more permissive with their technology parenting practices [28, 29], which subsequently may allow for higher mobile media use. A limitation of our study was that parents were asked to focus on just one child. This research did not consider the number of children in the family or the position of that child in the birth order. These factors may have influenced screen media parenting practices or opinions [12–14].

Screen media parenting mediational practices were evident, with the majority of the sample responding that they were using both restrictive and active mediation strategies, including talking with their child about their mobile media use, limiting the amount of time their child used their device, and employing parental controls. Sometimes, these practices caused tensions with parents reporting oppositional behaviors, which lends support to research by Hadlington et al. [25], who found that whilst parents frequently set boundaries regarding technology use, they often had difficulties enforcing these boundaries. Further research regarding the challenges and successes of mediation practices that parents implement would guide screen media parenting practices as devices become more common in the home. Interestingly, most parents indicated they had never sought or accessed parenting advice or guidelines relating to their child's mobile media use. This suggests mediation strategies may be employed in the absence of seeking out or accessing evidence-based information regarding parenting practices for mobile media use. Although parents have often expressed desires for advice regarding their child's engagement with digital media [14], little research can be found on parents accessing information about screen guidelines. Our study confirms parents seeking advice primarily do so via parenting websites, social networking sites, and other parents, not via medical professionals or teachers who are likely to be in their proximal sphere of influence [65]. As knowledge increases about the impact of mobile media on childhood development, parents need to be supported to implement boundaries, so they feel confident around their child's screen time and confident that their child will develop their abilities to initiate tasks, control their emotions, develop their working memory, and think carefully about their actions.

Parents in our study reported several negative behaviors they aligned with their child's mobile media use. The most reported behavior was oppositional behavior such as arguing back. Other difficulties included a lack of physical activity and difficulty attending to tasks other than mobile media. Additionally, conflict in the family home was associated with mobile media use. This aligns with previous research that

has found associations between a child's use of their tablet, parental mediation of tablet use, and parent-child conflict about such use [25, 33].

Parents who strongly agreed their child's mobile media use was having a negative impact on their child's behavior, academics, and attention and also reported higher levels of observed executive dysfunction. These parents reported higher levels of problems with inhibiting behaviors and emotional control whilst those who believed that their child's mobile media use negatively impacted their academics noted that their child had greater difficulty with tasks of initiation. Additionally, where parents observed their child's mobile media use negatively impacted their attention, they also reported that their child had more working memory difficulties. Initiating tasks and working memory are essential developmental executive functions required for success in learning and at school [66, 67].

This study has not confirmed previous research by Jusiene et al. [68] which reported screen time was not related to executive functions in typically developing preschoolers. That said, our study examined parental observations of their children's executive functioning, and many of the children were older than preschoolers. Importantly, parents "lived experiences" with their child need to be valued. If they feel that mobile media impacts their child's executive functioning, then they need guidance on how to mitigate adverse effects and promote beneficial uses of mobile media for their children. Additionally, measuring screen time alone may not provide sufficient information on the nature of mobile media use whereby screen time and content may interact to influence executive functioning. Notably, studies have shown that educational applications may have beneficial effects on executive functions [57]. Future collection of mobile media use data should include what type of activity the child is engaged in on their device. Little research has been conducted on a potential link between childhood mobile media use and development despite the confirmed connection between television screen viewing and lowered emotion, understanding, diminished academic performance, and executive dysfunction [51–54]. Understanding children's mobile media habits and how they contribute to a child's development is critical as the popularity and availability of devices increase.

Several limitations need to be considered when interpreting the results of the present study. Firstly, a self-report bias may be present due to the self-report nature of the questionnaire used. This bias is universally seen in survey design where participants' responses may be vulnerable to cognitive processes, social desirability bias, or survey conditions [69]. Radesky et al. [70] found that almost three quarters of parents misjudge how much time their preschoolers spend on mobile media. In this study, of note, is the social desirability bias which is frequently found in questions of a sensitive nature, due to the highly personal nature of parenting choices, parents may have underestimated the time their child spends on mobile media. If parents have underreported the conflict associated with mobile media or the observed impact on their child's behavior and academic performance due to social stigma, there is a



chance that the problem is more significant than what was reported.

This study provides a foundation for future research into childhood mobile media use in the home, screen media parenting practices, parental mediation, and the possible links to executive functioning and academic success. Despite some limitations, this research has practical implications; the present findings could help inform guidelines on mobile media screen use. For parents reporting a high level of conflict in the family home due to their child's mobile media use, future guidelines may empower them regarding parenting around mobile media and assist them in managing conflict over mobile media devices in their home. Additionally, it may be helpful for future screen use guidelines to incorporate advice on managing behavior expectations and conflict associated with childhood mobile media use. Parental perceptions need to be valued as interactions with their children ultimately shape their child's development, particularly related to executive functioning. Therefore, an emphasis should be placed on the importance of educating parents on the emerging evidence of the role of mobile media in shaping a child's behavior and associated executive functions. Notably, precise and targeted advice should be developed and available for parents to assist in their decision-making regarding mediating mobile media practices in the home.

### Data Availability

The data that supports the findings of this study are available on request from the corresponding author, S.M. The data is not publicly available due to privacy.

### Ethical Approval

Ethical approval was obtained from the Edith Cowan University Human Research Ethics Committee (approval no. 2020-02009-MILFORD). All participants provided written informed consent.

### Conflicts of Interest

The authors declare that there is no conflict of interest regarding the publication of this article.

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