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Parent–child conflict about children’s tablet use: The role of parental mediation

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Abstract

This study examined the relations of children’s tablet use and parents’ mediation of children’s tablet use with parent–child conflict about such use. A sample of 364 parents of children aged 2–10 years was used to investigate the relations. The results showed that children who spent more time using the tablet had more conflicts with their parents. Also, children who received high amounts of restrictive mediation had more conflicts with their parents about the tablet. Children who often co-used the tablet with their parents had less conflict, however. Significant two-way interactions indicated that while restrictive mediation increased the strength of the relationship between tablet use and conflict, co-use decreased the strength of the relationship.

Keywords

Active mediation, children, co-use, parental mediation, parent–child conflict, parents, restrictive mediation, tablets

The last few years have witnessed an impressive increase in the adoption of mobile media. Families today have access to multiple mobile devices, including smartphones, tablets, and laptops (Common Sense Media, 2013; Ofcom, 2014). The rise in the use of mobile devices has raised concerns in the popular press about the potential impact of

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mobile devices on children and their families (e.g. Miller, 2013; Paton, 2014), echoing the long history of concerns over new technologies and media (Wartella and Jennings, 2001; Wartella and Reeves, 1985). Yet, while some studies have investigated the impact of the use of mobile devices on children and families, such as adolescents' use of mobile phones (e.g. Ling, 2004; Ling and Donner, 2009), much remains unknown about the impact of mobile devices on family life.

Much attention in the public debate around the impact of mobile devices on children and families has been focused on tablets (e.g. Paton, 2014). This is not surprising, given that tablets have very rapidly found their way into today's families and are among the most frequently used mobile devices among children (Common Sense Media, 2013). A recent report published in the United States revealed that 4 in 10 children under 8 years have access to tablets (Common Sense Media, 2013). In addition, for several activities, including watching TV or movies and reading books, children use tablets more than other devices, such as smartphones or laptops (Common Sense Media, 2013; Ofcom, 2014).

While children's use of tablets is clearly on the rise, scholars have emphasized that there is a lack of empirical studies into the impact of children's tablet use (Radesky et al., 2014; Strasburger, 2013). Furthermore, the few studies that have examined the effects of children's tablet use have mainly focused on the effects on children's learning (e.g. Couse and Chen, 2010; Krcmar and Cingel, 2014) and children's sleep (e.g. Fossum et al., 2014; Lemola et al., 2015; Pieters et al., 2014). Clearly, many aspects that may be affected by children's tablet use remain unexplored and several gaps exist in the literature on the effects of children's tablet use.

The aim of this study is to address three important gaps in our understanding of the impact of children's tablet use on family life. First, little is known about the impact of children's tablet use on interactions between children and their parents. Recently, Radesky et al. (2014) called attention to the absence of research into the impact of mobile devices on parent-child interaction and reported that *caregivers'* mobile device use affected parent-child interactions. Yet, to our knowledge, the possibility that *children's* tablet use may affect parent-child interactions has not been investigated. In particular, the relationship between children's tablet use and parent-child conflict about this use has not been investigated.

Second, there are gaps in our understanding of the impact of parental mediation strategies regarding children's tablet use on interactions between children and their parents. Prior studies (Mesch, 2006a, 2006b; Nathanson, 2002; Van den Bulck and Van den Bergh, 2000, 2005) suggest that parents' mediation of children's tablet use may affect the relationship between children and their parents, with some types of mediation being associated with more parent-child conflict than others.

Third, previous studies that investigated family conflicts about children's media use largely relied on adolescent samples (e.g. Lenhart et al., 2010; Livingstone, 2007; Mesch, 2006a, 2006b). Parent-child conflict about children's media use has rarely been investigated among young children. Therefore, the current study relies on a sample of parents of young children and focuses on conflict between children aged 2-10 years and their parents.

In order to address these gaps in the literature, the present study investigates the relationships among children's tablet use, parents' mediation of children's tablet use, and parent-child conflict about children's tablet use.

Parent–child conflict about children’s tablet use

Parent–child conflict is a very common and normative aspect of childhood (Huang et al., 2007; Laible and Thompson, 2002), which likely increases throughout childhood (Laible and Thompson, 2002). Scholars have defined parent–child conflict as interactions that result from children’s non-compliance to parents’ instructions, children’s resistance to parents’ intrusiveness, as well as parents’ resistance to requests made by children (Eisenberg, 1992).

Indications exist that children’s tablet use may elicit such conflictual interactions between parents and their children. Scholars have suggested that new technologies, such as tablets, influence family dynamics (Ling, 2004; Ling and Donner, 2009; Mesch, 2006a, 2006b; Nathanson, 2013; Van den Bulck and Van den Bergh, 2005). The introduction of new media in the family typically involves the introduction of new habits, behaviors, and rules (Mesch, 2006a; Van den Bulck and Van den Bergh, 2005). For instance, Mesch (2006a) found that adolescents and their parents often had conflicts about adolescents’ Internet use. However, despite extensive research examining young children’s media use and effects, there has been little research on parent–child conflict about children’s use of new technologies, such as their use of tablets.

Nonetheless, a few studies suggest that children’s tablet use may be a source of conflict between children and parents. A recent report showed that most parents do not regard tablets to support parenting (Wartella et al., 2014). Parents find it difficult to capture children’s attention when children are using a tablet and believe that tablets cause fights with their children (Wartella et al., 2014). In addition, the report showed that one in five parents agreed that setting rules and making decisions about children’s media use leads to conflicts in the family (Wartella et al., 2014).

Another indication that children’s tablet use may lead to parent–child conflict comes from a study on *caregivers’* mobile device use. Radesky et al. (2014) described that caregivers’ use of mobile devices affected the interactions between the caregivers and their children. Caregivers, who were observed with their children while having meals in fast-food restaurants, responded more harshly when their children tried to get their attention. These findings indicate that the use of mobile devices by caregivers may lead to conflict between caregivers and their children.

It is likely that children’s tablet use leads to conflicts as well. First, children’s tablet use may lead to parent–child conflict about such use because children typically need to share the device with other family members, since most children do not own a tablet themselves (Wartella et al., 2014). Also, because tablets have rather small screens and therefore are optimally controlled by only one user at a time, children need to take turns using the device. Scholars (Mesch, 2006a; Van den Bulck and Van den Bergh, 2005) have argued that such turn-taking and sharing leads to conflicts between parents and their children.

Second, monitoring children’s tablet use is challenging for parents and may lead to frustrations and conflicts. Due to the mobility and ease of use of tablets, children may perceive fewer barriers to use a tablet and may use a tablet without permission from their parents. Children may perceive fewer barriers to turn on a tablet by themselves, compared to, for instance, playing a DVD or turning on the computer. Also, they can use

tablets everywhere (e.g. in their bedroom, in the car, or at the dinner table) and while they are engaged in other activities (e.g. while eating dinner and while getting ready to go to bed), sometimes against the wishes of their parents. Hence, the mobility and constant availability of tablets may be challenging for parents to enforce rules (Sonck et al., 2013) and may cause conflicts between parents and children.

For these reasons, we expected that children's increased tablet use would be associated with more parent-child conflict (H1).

Parental mediation of children's tablet use

Another reason why children's tablet use might lead to parent-child conflict relates to parents' mediation of children's tablet use. Some mediation strategies may lead to more parent-child conflict, while others may lead to less conflict (Mesch, 2006a; Van den Bulck and Van den Bergh, 2000). Research into parents' mediation of children's television viewing has identified three parental mediation strategies (Austin et al., 1997; Nathanson, 1999; Valkenburg et al., 1999). Active mediation refers to talking with the children about the content they view; restrictive mediation refers to rule setting and regulating children's television viewing; and co-viewing refers to watching television with the children (Nathanson, 1999; Valkenburg et al., 1999).

Parents use these strategies to mediate children's television viewing (Nathanson, 2001a), as well as children's computer and Internet use (Lee, 2013; Lee and Chae, 2007) and game playing (Gentile et al., 2012). In addition, some studies have identified parental co-use as a strategy in which parents use the medium (e.g. a computer or the Internet) together with the child (Lee and Chae, 2007).

There are indications that some types of mediation lead to more parent-child conflict while other types of mediation lead to less parent-child conflict (Mesch, 2006a; Van den Bulck and Van den Bergh, 2000). First, evidence exists that restrictive mediation is associated with more parent-child conflict. Nathanson (2002, 2013) argued that children may exhibit disobedience and rebelliousness against parents' rules and regulations about children's media use. According to the assumptions of reactance theory (Brehm and Brehm, 1981), children may exhibit reactance against their parents' restrictions because they want to retain their freedom to perform the behavior. Also, parents' restrictions may evoke a forbidden fruit response and increase children's interest to use the tablet (Hoffman, 1970).

Children's acts of rebelliousness and disobedience against their parents' restrictions may lead to conflict between children and their parents. In qualitative interviews about parents' restrictions of children's TV viewing, parents reported that they expected that limiting children's TV viewing time would result in more parent-child conflict (Evans et al., 2011). Parents thought that children would be angry about parents' rules and show defiance if parents were to limit children's TV viewing, which would lead to parent-child conflict (Evans et al., 2011). Children, and in particular young children, expected that they would be angry if their parents would restrict their media use (Evans et al., 2011).

Research that has looked at parents' mediation of children's TV use and Internet use has confirmed these assumptions. Van den Bulck and Van den Bergh (2000) found that restrictive mediation of children's TV viewing increased general parent-child conflict.

Mesch (2006a) reported that adolescents had more conflicts with their parents about using the Internet if their parents had rules about how long they were allowed to use the Internet. Together, based on the theoretical and empirical evidence, we expected that more parental restrictive mediation of children's tablet use would be associated with more parent-child conflict about the tablet ($H2_a$).

Second, research suggests that active mediation of children's tablet use is associated with increased parent-child conflict. Nathanson (2002) expected that active mediation would be associated with more positive attitudes toward parents among adolescents, because active mediation would reinforce the relationship between these adolescents and their parents. However, she found that active mediation was not related to adolescents' attitudes toward their parents (Nathanson, 2002). This seems to suggest that active mediation would be unrelated to parent-child conflict. Yet, empirical evidence shows that active mediation of children's television viewing was associated with more parent-child conflict (Van den Bulck and Van den Bergh, 2000).

This might especially be the case with tablet use. As tablets lean themselves more toward an individual use (compared to television) and are very easy to use even for young children, children might perceive parents' active mediation strategies as regulative and limitative. Like restrictive mediation, and based on the assumptions of reactance theory (Brehm and Brehm, 1981), active mediation may elicit reactance among children against the efforts of parents to mediate their children's tablet use. Therefore, we expected that more active mediation of children's tablet use would be associated with more parent-child conflict ($H2_b$).

Third, evidence exists that co-use of the tablet is associated with less parent-child conflict. Nathanson (2002) argued that parental co-use may increase parent-child bonding and reinforce the relationship between children and their parents, because parents show that they are interested in the child and willing to engage in the child's activities. This seems especially relevant for parent-child co-viewing or co-use of media, because parents and children who engage in activities together have more cohesive relations (Mesch, 2006b; Zabriskie and McCormick, 2001) and experience less conflicts (Dubas and Gerris, 2002; Mesch, 2006b). Children may perceive that parents approve what they co-view with them (Nathanson, 2001b). Also, prior research has shown that co-viewing by parents is associated with increased enjoyment of what is co-viewed (Salomon, 1977).

As such, children who co-use the tablet with their parents may perceive that parents approve their use of the tablet and interpret that using a tablet is valuable. Parents' co-use of tablets with their children may be a bonding experience and may reinforce the parent-child bond. Thus, it is likely that increased co-use of tablets is associated with less parent-child conflict. This assumption is supported by empirical evidence from research on parents' mediation of television viewing, showing that co-viewing of television was associated with fewer conflicts between children and their parents (Van den Bulck and Van den Bergh, 2000). Together, we expected that more parental co-use of tablets would be associated with less parent-child conflict about using the tablet ($H2_c$).

Finally, indications exist that the relationship between children's tablet use and parent-child conflict differs according to parents' level of mediation. First, because we expected that children would exhibit reactance in response to parents' restrictive mediation ($H2_a$) and active mediation ($H2_b$), we expected that the relationship between children's tablet

use and parent–child conflict would be stronger for children who received high amounts of restrictive/active mediation. Therefore, we hypothesized that the relationship between children’s tablet use and parent–child conflict would be stronger when parents used higher levels of restrictive mediation (H3_a) and active mediation (H3_b).

Second, because we expected that by co-using the tablet children and parents would strengthen their relationship (H2_c), we expected that the relationship between children’s tablet use and parent–child conflict would be less strong when parents co-used the tablet more often. Therefore, we hypothesized that higher levels of parental co-use of tablets would decrease the strength of the relationship between children’s tablet use and parent–child conflict (H3_c).

Several family, parent, and child characteristics are associated with children’s tablet use, parents’ mediation strategies, and parent–child conflict. Recent reports showed that children in lower income families have less access to tablet devices and use tablet devices less often than children in higher-income families and that children’s ownership and use of tablet devices increases with age (Common Sense Media, 2013; Ofcom, 2014). Furthermore, previous studies reported that parents of younger children use more restrictive mediation (Austin et al., 1999; Lee, 2013; Sonck et al., 2013; Valkenburg et al., 1999) and more active mediation (Barkin et al., 2006; Valkenburg et al., 1999). Also, parents with higher education use more restrictive (Gentile et al., 2012; Valkenburg et al., 1999) and active mediation (Valkenburg et al., 1999), but engage less often in co-viewing (Austin et al., 1999; Gentile et al., 2012), although the evidence is mixed.

Parents with lower income use less restrictive mediation but co-view more (Gentile et al., 2012) and parents with more children use more restrictive mediation (Sonck et al., 2013). Furthermore, Mesch (2006a) found that children and parents had more conflicts about children’s Internet use in families with less educated parents and families with more children. In order to examine the unique contribution of children’s tablet use and parents’ mediation strategies to parent–child conflict, we included the child’s age, the parent’s educational level, the household income, and the number of children in the family as control variables in the analyses.

Method

Participants and procedure

Data were collected among parents ($N=675$) of children aged 2–10 years ($M=6.46$ years old, $SD=1.95$; 49.7% boys and 50.3% girls) using an online survey. Participants were recruited from 25 public and private preschools and elementary schools in Belgium and invited to complete an online questionnaire. After school principals had granted the investigators permission, recruitment letters that included a link to the online survey and two reminders were distributed at each school (Total Design Method; Dillman, 1978). All children received a recruitment letter. Parents were guaranteed that participation in the study was voluntary and that all responses would be handled confidentially. Parents were invited to complete the questionnaire at home, using the link to the online survey. If participants had more than one child, they were asked to complete the questionnaire for the child with the next birthday (Next-Birthday Method; Salmon and Nichols, 1983).

After completing the questionnaire, participants were offered a chance to win a raffle (gift vouchers).

On average, participants were 35.83 years old ($SD=4.35$). Most participants had two children (49.2%), 21.2% had one child, and 29.6% had three children or more. The majority of parents had graduate or college graduate degrees (79%), one-fifth held high school degrees (19.6%), 0.9% held elementary school degrees, and 0.5% had no degree. Almost 3 in 10 participants reported a monthly household income of €3,000 or less (27.2%), 38.5% reported a monthly household income of between €3,000 and €4,000, and 34.3% reported a monthly household income of €4,000 or more. For the purpose of the current study, participants who had a tablet at home were selected for the analyses ($n=364$).

Measures

Children's tablet use. Parents reported how many hours and minutes their child uses a tablet on an average weekday, an average Wednesday, and an average weekend day. Wednesday was singled out because children are out of school on Wednesday afternoons in Belgium, which typically creates extra opportunities for using a tablet. We converted the reported usage time into minutes by multiplying the hours by 60 and adding it to the number of minutes. To calculate weekly use in minutes, we multiplied the weekday use by four and added the result to the number of minutes reported for Wednesday and the number of minutes reported for the weekend day times two ($[\text{weekday minutes} \times 4] + [\text{Wednesday minutes}] + [\text{weekend day minutes} \times 2]$) ($M=283.55$, $SD=285.17$).

Parents' mediation of tablet use. We adapted the television mediation scale developed by Valkenburg et al. (1999) to represent mediation of tablet use. The scale included 15 items, such as *How often do you try to help your child understand what s/he sees on the tablet?* and *How often do you tell your child to turn off the tablet device when s/he is watching unsuitable content or doing unsuitable activities?* Response options ranged from (*almost*) never (1) to (*almost*) always (5). A principal-components factor analysis with oblimin rotation revealed three mediation styles explaining 75.61% of variance: restrictive mediation ($M=3.41$, $SD=.99$, $\alpha=.82$), active mediation ($M=2.85$, $SD=.99$, $\alpha=.94$), and co-use ($M=2.75$, $SD=.91$, $\alpha=.95$). Responses to the questions were averaged to create the scales. Higher scores on the scales reflected more restrictive mediation, more active mediation, and more co-use, respectively.

Parent-child conflict. Parents reported how often they had a conflict with their child about the child's tablet use. The scale consisted of three items, such as *How often do you have a conflict with your child because your child has to turn off the tablet?* Response options ranged from never (1) to several times a day (9). A principal-components factor analysis revealed one factor explaining 69.43% of variance. Responses to the questions were averaged to create a total conflict score ($M=3.24$, $SD=1.65$, $\alpha=.78$). Higher scores reflected more conflict.

Control variables. Parents indicated the highest level of education they had obtained, ranging from no degree (1) to graduate degree (5), their household income, ranging from

Table 1. Zero-order correlations between all variables included in the regression models.

	Parent education	Household income	Child age	Number of children	Tablet use	Active mediation	Restrictive mediation	Co-use	Parent-child conflict
Parent education	1								
Household income	.31***	1							
Child age	.02	.12*	1						
Number of children	.05	.11*	NA	1					
Tablet use	-.24***	-.10+	.23***	-.08	1				
Active mediation	.00	-.02	-.02	-.01	.03	1			
Restrictive mediation	.10+	.16**	-.03	.17**	-.21***	.54***	1		
Co-use	-.09	-.02	-.14*	-.13*	.10+	.59***	.34***	1	
Parent-child conflict	.03	.09	.10+	.10	.13*	.08	.23***	-.06	1

NA: not applicable.

Note: * $p < .10$; ** $p < .05$; *** $p < .01$; **** $p < .001$.

less than €1.000 a month (1) to more than €5.000 a month (6), the child's age, and the number of children in their family. These variables were included as control variables in the analyses.

Analysis

To test our hypotheses, hierarchical regression analysis was conducted in SPSS. We entered the child's age, the parent's education, the household income, and the number of children in the family as control variables into the first block of the equation. After mean centering the variables, we included the tablet use measure in the second block and the parental mediation measures in the third block. Finally, in the fourth block, we entered the interaction terms between the mean centered variables of tablet use and active mediation, tablet use and restrictive mediation, and tablet use and co-use.

Next, interaction effects were further probed with process (model 1) using the Johnson-Neyman technique (Hayes, 2009). This technique identifies regions of statistical significance by determining the range of parental mediation values for which the relationship between children's tablet use and parent-child conflict is statistically significant (Hayes and Matthes, 2009).

Results

Zero-order correlations between all variables included in the analyses are presented in Table 1.

Table 2. Hierarchical regression analysis of the relation between children’s tablet use, parents’ mediation of children’s tablet use, and parent–child conflict.

	B	SE	β	t	Adj. R ²	ΔR^2
Step 1					.01	
Parent education	.22	.21	.06	1.05		
Household income	.12	.09	.08	1.38		
Child age	-.04	.05	-.05	-.77		
Number of children	.01	.11	.00	.07		
Step 2					.02 ⁺	.02 [*]
Tablet use	.00	.00	.49 ^{***}	6.71		
Step 3					.10 ^{***}	.09 ^{***}
Restrictive mediation	.63	.12	.38 ^{***}	5.47		
Active mediation	-.03	.12	-.02	-.26		
Co-use	-.51	.13	-.28 ^{***}	-3.95		
Step 4					.21 ^{***}	.12 ^{***}
Restrictive mediation X Tablet use	.00	.00	.44 ^{***}	5.24		
Active mediation X Tablet use	-.00	.00	-.18 [*]	-2.24		
Co-use X Tablet use	-.00	.00	-.23 ^{***}	-3.65		
F	7.52 ^{***}		Df	11		

SE: standard error.

Coefficients are derived from the final regression model (i.e. after all four steps were entered in the regression analysis).

⁺*p* < .10; ^{*}*p* < .05; ^{**}*p* < .01; ^{***}*p* < .001.

Main relationships

Table 2 presents the results of the hierarchical regression analysis of the relation between children’s tablet use, parents’ mediation of children’s tablet use, and parent–child conflict. The full regression model accounted for 21% of the variance in parent–child conflict. Children’s tablet use was positively related to parent–child conflict ($\beta = .49, p < .001$), indicating that more tablet use was related to more parent–child conflict. Thus, H1 was supported. Parental mediation of children’s tablet use explained a significant 9% of additional variance in parent–child conflict. Individually, both restrictive mediation ($\beta = .38, p < .001$) and co-use ($\beta = -.28, p < .001$) were significantly related to parent–child conflict, indicating that more restrictive mediation was related to more parent–child conflict and more co-use was related to less parent–child conflict. Thus, H2_a and H2_c were supported. Active mediation ($\beta = -.02, p = .79$) was not significantly related to parent–child conflict. H2_b was not supported.

Interaction effects

The interactions between tablet use and parental mediation explained a significant 12% of additional variance in parent–child conflict (see Table 2). The two-way interaction effects between tablet use and restrictive mediation ($\beta = .44, p < .001$), between tablet use and active mediation ($\beta = -.18, p < .05$), and between tablet use and co-use ($\beta = -.23,$

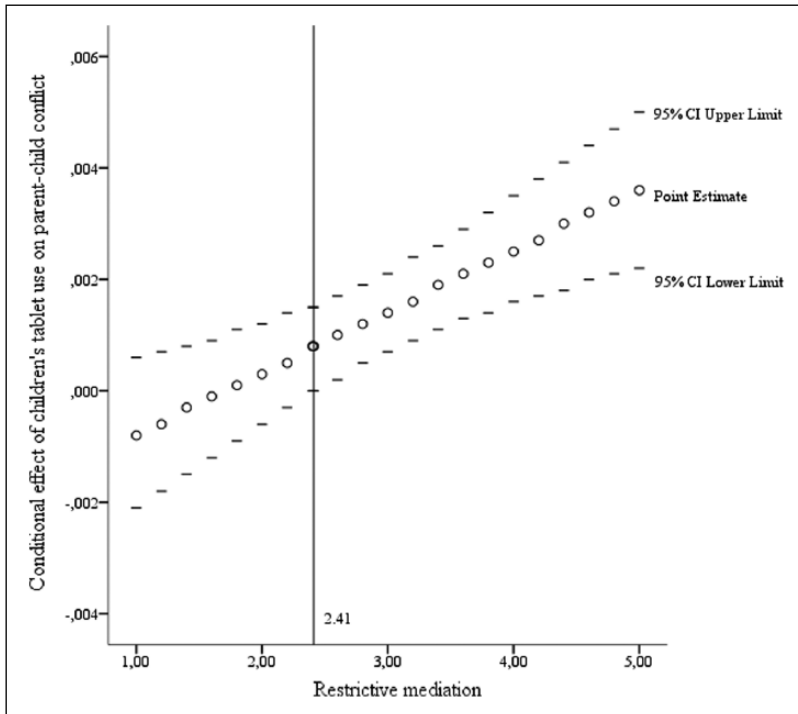


Figure 1. Conditional effect of children's tablet use on parent-child conflict about children's tablet use as a function of parents' restrictive mediation.

$p < .001$) were all significant. These findings indicated that the relationship between children's tablet use and parent-child conflict depends on parents' mediation of children's tablet use.

The interactions were further probed using the Johnson-Neyman technique. First, the results of the Johnson-Neyman analyses indicated that there was a significant positive conditional effect of tablet use on parent-child conflict as a function of restrictive mediation. In particular, the analyses indicated that a significant positive relationship between the amount of tablet use and conflict was found when parents scored ≥ 2.41 on restrictive mediation. No significant association between tablet use and conflict was found for parents scoring < 2.41 on restrictive mediation, which was the case for 18.28% of the respondents. The conditional effect of tablet use on conflict was stronger for parents reporting higher levels of restrictive mediation. Thus, $H3_a$ was supported (Figure 1).

With regard to active mediation, the results were more complex. While the Johnson-Neyman analyses indicated that there was a significant conditional effect of tablet use on parent-child conflict for active mediation values ≥ 1.36 and ≤ 4.88 , there was no significant increase in the R^2 value due to the inclusion of the interaction in the model. Thus, there is no clear evidence for the hypothesis that there is a conditional relationship between tablet use and conflict as a function of parents' use of active mediation (Figure 2). Therefore $H3_b$ was not supported.

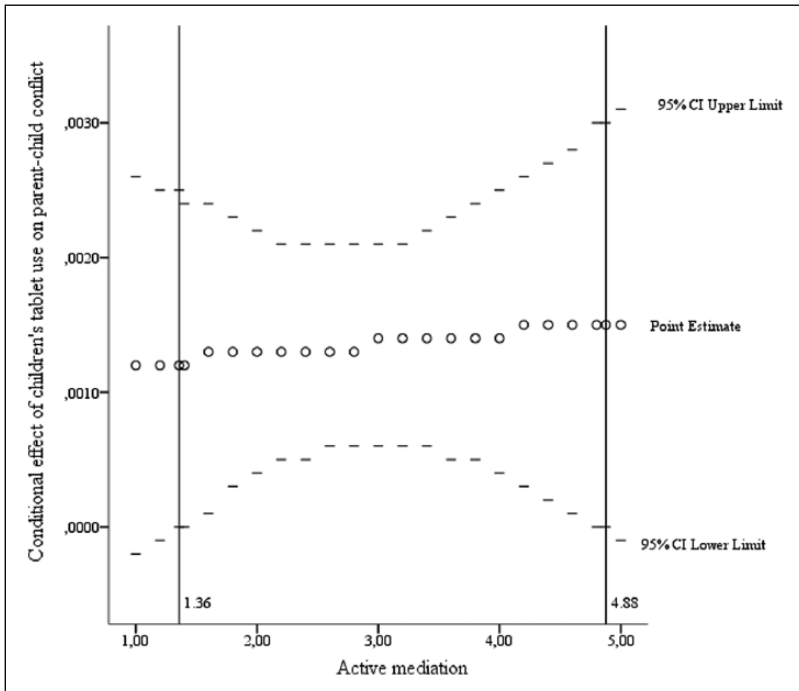


Figure 2. Conditional effect of children’s tablet use on parent–child conflict about children’s tablet use as a function of parents’ active mediation.

Third, the results of the Johnson–Neyman analyses indicated that there was a significant negative conditional effect of tablet use on parent–child conflict as a function of co-use. In particular, the association between tablet use and parent–child conflict was stronger when lower levels of co-use were applied. When parents scored higher than 3.49 on co-use, which was the case for 17.91% of the respondents in the sample, the association between tablet use and conflict turned to non-significant. Thus, these findings support H3_c: Higher levels of parental co-use decrease the strength of the relationship between children’s tablet use and parent–child conflict (Figure 3).

Discussion

This study examined the associations among children’s tablet use, parents’ mediation of children’s tablet use, and parent–child conflict. The findings demonstrate that children who spent more time using the tablet had more conflicts with their parents. Also, children who received high amounts of restrictive mediation had more conflicts with their parents about the tablet. Children who often co-used the tablets with their parents had less conflict. Significant two-way interactions indicated that the relationship between children’s tablet use and parent–child conflict depends upon parents’ mediation styles.

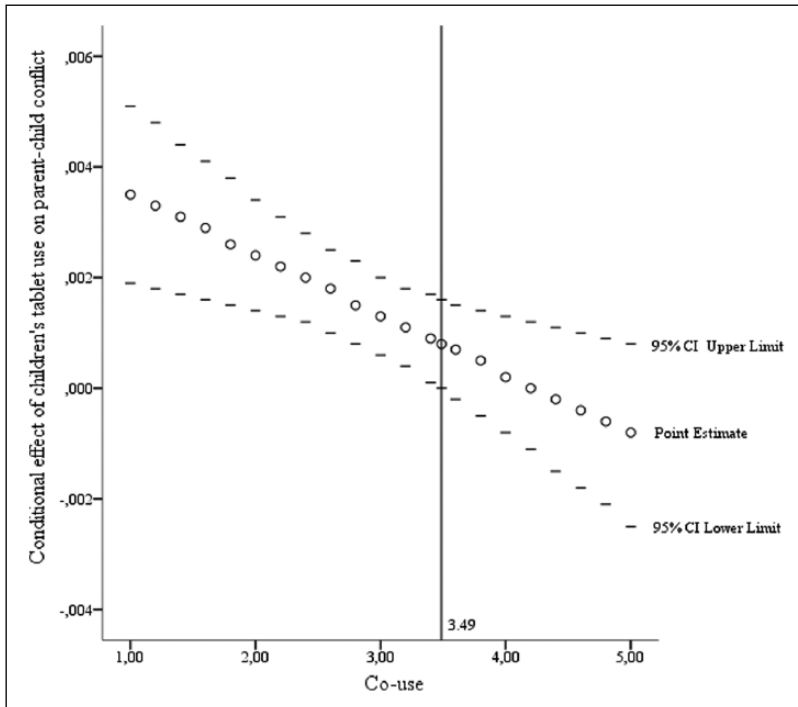


Figure 3. Conditional effect of children's tablet use on parent-child conflict about children's tablet use as a function of parents' co-use.

Parents used a combination of mediation strategies to guide children's tablet use, but applied restrictive mediation more often than active mediation and co-use. In view of the high individualization inherent to tablet devices, it seems more difficult for parents to use the tablet along with their children or to implement active mediation strategies than to impose restrictions, as suggested by others (Nikken and Jansz, 2014; Sonck et al., 2013). This seems particularly the case for parents with more children, as indicated by the zero-order correlations.

Increased use of restrictive mediation was related to more conflict. In addition, the association between tablet use and parent-child conflict was stronger when parents applied higher levels of restrictive mediation. These results confirm expectations based on reactance theory (Brehm and Brehm, 1981). Children may exhibit reactance against their parents' restrictions, which may result in conflicts with their parents about the use of the tablet. Yet, the zero-order correlations showed that more restrictive mediation was related with decreased tablet use, indicating that parents' restrictions are effective in reducing children's tablet use. Thus, efforts to restrict children's tablet use seem to be a double-edged sword: On the one hand, restrictive mediation seems effective, in the sense that it is associated with a decrease in children's tablet use, but on the other hand, it seems to backfire, in the sense that it increases parent-child conflict.

A critical next step is to investigate how children and parents will react to these conflicts. According to coercion theory (Patterson, 1976, 1982), if parents' efforts to restrict children's tablet use escalate in conflicts between the parents and their children, it is possible that parents ultimately indulge their children to avoid further conflicts. In this case, children may learn that their reactance against their parents' restrictions is rewarded (Snyder et al., 1994; Snyder and Patterson, 1995). From this perspective, children may exhibit reactance again when parents try to restrict children's tablet use in the future (Snyder et al., 1994; Snyder and Patterson, 1995), which again could lead to more tablet use as parents give in. As such, an ongoing cycle of parent-child conflict about children's tablet use might develop.

Co-use may be an effective strategy to reduce parent-child conflict, since more co-use was related to less parent-child conflict. As such, this study complements previous research showing that engaging in activities together decreases conflicts (Dubas and Gerris, 2002; Mesch, 2006b). Since co-use is related to less parent-child conflict but less frequently used by parents than restrictive mediation, it seems fruitful to help parents find ways to engage in more co-use when their children are using the tablet. In addition, the relationship between children's tablet use and conflict was strongest for parents who did not frequently co-use the tablet with their children. For parents frequently co-using the tablet with their children, children's tablet use was unrelated to parent-child conflict.

Active mediation was unrelated to parent-child conflict. The relation between active mediation and parent-child conflict might perhaps depend on other aspects. Scholars have suggested that the style in which parents provide active mediation plays a role (Nathanson, 2002; Valkenburg et al., 2013). For instance, findings from a recent study (Valkenburg et al., 2013) suggest that when parents provide active mediation in a controlling way, children and parents may have more conflicts, whereas when parents provide active mediation in an autonomy-supportive way, children and parents may have less conflicts. It would be useful for future studies to examine whether the style in which parental mediation of children's tablet use occurs shapes the effect of parents' mediation of children's tablet use on parent-child conflict about such use.

Our study found associations between children's use of tablets, parents' mediation of children's tablet use, and parent-child conflict about such use. Of course, other media and mobile devices also play an important role in today's families and their use could be associated with parent-child conflict as well. Children's lives are filled with multiple screens, from television, computer, and laptop screens, to smartphone and tablet screens (Common Sense Media, 2013; Ofcom, 2014; Wartella et al., 2014). The constant accessibility of multiple screens along with the ability to constantly move between different screens could further increase conflicts between parents and children. For instance, children who are not allowed to watch television may turn to a tablet device or a smartphone, possibly against the wishes of their parents. This likely increases conflicts about children's media use.

As a next step, research could examine whether the constant availability of multiple screens would increase parent-child conflict. Also, more research is needed to understand whether children's tablet use is associated with more conflict than children's use of other media devices, such as television or computers. The use of tablet devices is perhaps

related to more conflict compared with the use of television because of the mobility and accessibility of tablet devices and the need to share a tablet device with other family members and take turns using the tablet. In this view, research is needed to determine what reasons are associated with the highest levels of conflict. Particular reasons that were not examined in this study could perhaps relate to more parent–child conflict. For instance, the use of tablets around bedtime might elicit conflict between children and their parents when children are unwilling to stop using the tablet. Furthermore, as with the Internet (Mesch, 2006a), the use of tablets for entertainment purposes could elicit more conflict than the use of tablets for educational purposes.

The current study is, to our knowledge, one of the first to investigate media specific conflict, in particular in the context of children's tablet use. While our study found that children's tablet use and parents' mediation of such use were related to conflict between children and their parents, evidence exists to support relationships with sibling conflicts and conflicts between parents as well. Van den Bulck and Van den Bergh (2000) reported that parental mediation of children's television viewing increased (general) conflict between siblings and conflict between fathers and mothers. For tablets in particular, it is possible that children who need to share a tablet with their siblings and need to take turns using the device may have conflicts with their siblings about, for example, who is allowed to hold the device, for how long, and for what purpose.

While parent–child conflict is a very common and normative aspect of childhood (Huang et al., 2007; Laible and Thompson, 2002), it has often been considered to be negative (Wilmot and Hocker, 2001). However, parent–child conflict is an important part of children's social development (Eisenberg, 1992) and may result in social benefits for children (Boyer et al., 2015). For instance, through engaging in parent–child conflict, children are able to practice different social skills, including social problem solving skills, emotion regulation skills, and conflict resolution skills (Boyer et al., 2015; Klimes-Dougan and Kopp, 1999). Therefore, parent–child conflict about children's tablet use may not necessarily be a negative experience and may contribute to children's socialization and development of social skills.

Because little is known about the mediation strategies that parents use to mediate children's tablet use, we relied on the strategies that parents use to mediate children's TV viewing. Research is needed to further identify mediation strategies that parents use to mediate children's tablet use and their mobile device use more generally. It is likely that other mediation styles exist that are particularly relevant for children's tablet use and mobile device use. Research on parents' mediation of children's Internet use found that, in addition to the strategies that parents also use to mediate children's television use, parents adjust existing mediation strategies and use other mediation strategies as well (Livingstone and Helsper, 2008; Nikken and Jansz, 2014). For instance, parents apply supervision strategies (i.e. being present when the child uses the Internet) and technical restrictions and guidance (i.e. strategies that improve children's safety online, such as using a spam filter) to guide children's Internet use (Livingstone and Helsper, 2008; Nikken and Jansz, 2014).

Clearly, the ongoing changes in the media landscape of today's children and families call for research that identifies mediation strategies for children's mobile media use. The traditional mediation styles may be outdated, in the sense that they do not fit in with

today's media environment. For instance, unlike television, mobile devices such as tablet devices typically comprise multiple activities. Children use tablets to play games, to watch television shows or videos, and to read books, among others (Common Sense Media, 2013; Ofcom, 2014). Also, children use tablets for multiple purposes, such as educational purposes, entertainment purposes, or social purposes (Common Sense Media, 2013). While parents may restrict certain activities, they may support other. For instance, parents may want to restrict unsuitable games or television content, but may not want to restrict book reading or educational games.

The results of this study are limited by a number of factors. Data for this study were collected by self-reports of parents, which may have resulted in a social desirability bias, potentially leading to an underreporting of parent-child conflict about children's tablet use and an overreporting of parental mediation. In addition, the generalizability of the results of the current study might be limited by the overrepresentation of highly educated parents and due to self-selection bias. For instance, parents who participated in the study might have been more involved with children's tablet use than non-respondents. Also the relatively broad age range that was selected might limit the generalizability of our results. We recommend that future studies examine parent-child conflict about the tablet among less educated parents and among smaller age ranges to maximize the representativeness of the sample.

Because our data are cross-sectional, we cannot provide any conclusions about the causality of the relations found in this study. While our findings point to the direction that children's tablet use and parental mediation predict parent-child conflict, an alternative explanation for our findings could be that parent-child conflict predicts children's tablet use. In line with the findings of research on family conflict and children's television viewing (Rosenblatt and Cunningham, 1976), children perhaps use the tablet to avoid or cope with parent-child conflict. Yet, this explanation is less evident because the parent-child conflict measure used in the current study referred to conflict as an outcome of children's tablet use. It is unlikely that conflicts *about using the tablet* exist without prior use of the tablet.

Research is needed that investigates the role of general parenting practices in the relationship between parental mediation and parent-child conflict about the tablet. Since parental mediation is strongly correlated with general parenting patterns (Fujioka and Austin, 2002; Livingstone et al., 2015), it is possible that the relationship between parental mediation and parent-child conflict disappears when (general) parenting patterns are introduced in the analysis. In addition, research is needed that examines children's views on parent-child conflict about children's tablet use and children's media use in general, since the current study only examined parents' views on parent-child conflict about children's tablet use.

Finally, other potential explanations may account for the variance in parent-child conflict about children's tablet use. Research highlights several factors that may provide additional explanations for differences in parent-child conflict, including children's dispositional characteristics, such as children's temperament (Laible et al., 2008; Rubin et al., 2003) and children's effortful and inhibitory control (Laible et al., 2008), as well as parents' characteristics, such as parents' parenting self-efficacy (Ohan et al., 2000), and characteristics that relate to both the child and the parent, including parent-child attachment (Laible et al., 2008; Panfile et al., 2012).

Despite its limitations, this study is one of the first to empirically investigate the implications of children's tablet use for parent-child conflict about such use. In view of the impressive increase in children's use of tablets and other mobile media (Common Sense Media, 2013), more work is needed to investigate the implications for children's social, mental, and physical well-being.

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