

Watching and Playing Together: An examination of the relationship between family media time  
and parent-child relationships

By

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## Abstract

The ubiquity of screen time can create both challenges and opportunities for parents, and parents are often encouraged to co-view and discuss media content with their child. However, as children grow from early childhood to adolescence, they tend to spend less time with their families, more time with media, and are often less responsive to parental influence. At this intersection between children's increased media use and decreased family time and influence, parents may seize opportunities to use media with their child.

The current research conceived of shared media time as a functional family process that may strengthen the family system. Data were gathered via an online survey of 1599 parents of children aged 3-17. It was hypothesized that shared media time would be positively associated with parents' feelings of closeness to their child, and their reports of how often children disclosed to them. In fact, results indicated a negative total effect of shared video game time on family outcomes, and non-significant total effect of shared television time on family outcomes.

Additional hypotheses predicted that the extent of active mediation (explaining or evaluating the media content), general talk, physical contact (e.g., cuddling), and positive affect while using media together would explain positive relationships between shared media time and closeness and disclosure. There was partial support for these hypotheses. Shared media time positively predicted physical contact, which in turn positively predicted parent-child closeness. Shared TV time positively predicted active mediation, which positively predicted both disclosure and closeness. Shared video-game play positively predicted strategy talk, which positively predicted both outcomes. Additionally, parents shifted their behaviors during shared media time with child age, and their intentional use of media to bond with family members in some cases

strengthened these positive associations. Parents' open-ended responses provided support for the proposed mechanisms and revealed additional possible mediators.

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## CHAPTER 1

### Introduction

We watched *To Kill a Mockingbird* together last week because he had read it in school. It was funning [*sic*] talking to him about how it was the same and different from the book. We also talked about life in general -- racism, injustice, etc. It was great to have a deep discussion with him. I think he enjoyed it as well. – *Father of 15-year-old boy*

“M” had been struggling on one level of *Mario Kart* for a long time and was getting frustrated. She almost never gets frustrated with games, so I sat down next to her and talked to her about it. I started making fun of the video game characters and saying silly things until she was laughing again, and when she finally won, she gave me a huge hug and said that I helped her win by being "Mario Momma." It became a nickname for me when we play games together. – *Mother of 10-year-old girl*

As illustrated in the above descriptions of parent-child shared media time, the role of media in family life can be a positive one. Taken from parents describing a memorable shared media experience, the accounts described by the parents suggest a positive bonding outcome from sharing media experiences with their school-aged child(ren). In fact, this co-engagement is highlighted in the American Academy of Pediatrics’ (AAP) recommendations to parents as a way of facilitating learning and positive social interactions that have the ability to shape the child’s experience (AAP, 2016; Brown, Shiffrin, & Hill, 2015).

The ubiquity of screen time in the lives of many children creates both challenges and opportunities for parents. Not only are parents managing changes in the home due to normative developmental shifts in the child (e.g., puberty), parents are also negotiating changes in media access as the child grows. Children’s media use reports show that exposure increases as the child

ages (Rideout, Foehr, & Roberts, 2010; Rideout, 2011, 2013, 2015), with a significant increase in media use between the 10th and 11th year of life (Rideout et al., 2010). Both recreational time with media content (e.g., watching television and movies, listening to music, playing video games) and device ownership (e.g., mp3 players, cell phones, laptops) increase at this stage (8-10-year-olds spend 5:29 hours compared to 8:40 for age 11-14), and time spent with cell phones increases (0:20 for 8-10 compared to 0:51 for 11-14). In fact, a 2015 report of media use among tweens and teens shows a significant increase in time spent on any given day with screen media by age; tweens (8-12 years old) report spending four and a half hours a day with screen media, which increases to about six and a half for teenagers (13-18 years old; Rideout, 2015). Parents themselves are also spending about 9 hours a day with media (Lauricella, Cingel, Beaudoin-Ryan, Robb, Saphir, & Wartella, 2016).

Concurrently, as children develop and become more autonomous, parental influence may decline, and in the teenage years especially, the amount of time spent with peers can surpass that of time with parents (Steinberg & Silk, 2006). Thus, at the intersection between increased media use and a decrease in social time with children, parents may feel compelled to grab shared media opportunities as a way of preserving treasured time with their child. These joint media experiences may provide opportunities for parents and children to strengthen their relationship and family. As illustrated in the opening descriptions, parents report using media within the family to create opportunities for bonding (Evans, Jordan, & Horner, 2011). There is some prior evidence of an association between shared family media use and positive adolescent perceptions of parental involvement (Coyne et al., 2014b) and family connectedness (Padilla-Walker, Coyne, & Fraser, 2012).

I begin with an overview of the family systems frameworks that guide the research questions, and then describe relevant findings within the shared time literature and family media time. Finally, I outline the proposed study and the hypothesized models.

### **Theorizing About Family Systems and Processes**

This project draws on family systems theory and human ecological systems theory. Family systems theory places the family at the center of development stating that it is within the family that children are primarily socialized and nurtured (Smith & Hamon, 2012). This theory posits that the family is made up of an amalgamation of different subsystems that inform and affect one another. For example, there is the marital subsystem, parent-child subsystem, sibling subsystem, and coparenting subsystem. This complex amalgamation of different subsystems works to maintain balance and stability within the larger family system, and since the systems are connected to one another, a disruption in one forces adjustments in another. Therefore, for example, as the parent-child relationship is unbalanced as the child goes through puberty, the system must adjust itself to re-establish equilibrium (Steinberg & Silk, 2006).

Family systems theory stresses the importance of structure and processes that maintain or impact the system (Galvin, Dickson, & Marrow, 2006). The patterns that families set up are influenced by their environment (e.g., neighborhood, social status), however, the family's life stage can also impact family processes and routines. For example, once a new baby is introduced into the family, not only do roles and responsibilities shift between the parents (Smith & Hamon, 2012), but the routines also accommodate the system change (e.g., mom getting up to nurse every two hours).

Family routines and processes are important to the study of media effects because they not only further our understanding of the contextual factors that influence exposure outcomes, but also provide a lens for understanding the positive effects of media exposure for families. For example, family movie night as a ritual may help maintain family cohesion as it reinforces a sense of belonging among group members. Shared family media use can be evaluated as a functional family process that possibly strengthens the system, or allows for adjustments to be made when disequilibrium in other parts of the system (i.e., child developmental changes) occur.

### **Prior Research on Benefits of Shared Family Time**

Overall shared time (e.g., time in leisure activities, mealtime, religious attendance, and cultural activities) between parents and children has been studied as an important influence on child development, especially during adolescence. Both cross-sectional and longitudinal surveys suggest that shared time has the potential to be beneficial for children and families. Cross-sectional studies found significant negative associations between parent-teen time together and adolescent delinquent behavior, substance use, drinking, and smoking (Milkie, Nomaguchi, & Denny, 2015; Barnes et al., 2007).

Further supporting the connection, longitudinal research has found significant associations between parent-child time spent together and subsequent academic and emotional outcomes. Crouter, Head, McHale, and Tucker (2004) found significant links between family time at an initial measurement (e.g., eating meals, watching TV, participating in active leisure or religious activities) and fewer depressive symptoms two years later by first born adolescents (i.e., 8<sup>th</sup> – 10<sup>th</sup> graders). Desha, Nicholson, and Ziviani (2011) found that adolescent perceptions of parental acceptance mediated the relationship between shared time with parents and depressive symptoms, with greater acceptance negatively related to depressive symptoms. In terms of

academics, Crosnoe and Trinitapoli (2008) found that initial reports of shared activities (i.e., playing sports, attending cultural events or participating in educational activities) positively predicted increases in math achievement five years later.

Taken together, shared time between parents and children appears to foster the parental relationship and accrue benefits for the child. Does shared *media* time also foster these outcomes? If so, how might shared media experiences have such effects?

### **Shared Time with Media**

Shared time between parents and children is often measured with a combination of activities, which includes watching television together. In fact, within the context of shared family time, watching television together appears to be a common activity (Dubas & Gerris, 2002; Crouter et al., 2004; Crosnoe & Trinitapoli, 2008). Survey research assessing media use in the home supports the prevalence of shared media time among family members, with 89% of parents reporting they regularly watch with their 3-10-year-old child in one study (Takeuchi, 2011). A majority of parents (52%) also reported regularly playing console-based video games with their child. In regard to the experience with different shared mediums, when asked to pick one activity they enjoy doing the most with their child given a list of media-related activities (e.g., reading a book, playing board games, creating art on the computer, playing a computer game), more parents reported enjoying watching television with their child than any other activity (42% compared to 23% reading books – the second most enjoyable activity).

**Developmental changes in shared media time.** While it is clear that families share time together with media, it is unclear how this activity changes with the development of the child. Empirical evidence provides mixed results in terms of how a child's age affects family media

time. Some scholars have found a decrease in social and television time (Larson et al., 1996; Lam, McHale, and Crouter, 2012), while others have found an increase in shared television time (Crosnoe & Trinitapoli, 2008; Dubas & Gerris, 2002, Dorr, Kovaric, & Doubleday, 1989). Larson and colleagues (1996) assessed the quantity, contexts, and subjective experiences of adolescents' daily lives using experience sampling data with 10 – 14-year-olds at two points in time 4 years apart (i.e., again at 13-18 years old). Overall, they found a decrease in time spent with family (e.g., with parents and siblings, with siblings only, with extended family), however, dyadic time (i.e., one-on-one) with a parent remained stable over the 4-year period. In terms of types of activities, there was a significant decline in time spent watching television and participating in active leisure with family. Time spent talking with parents, especially for girls, did not decline, leading the authors to conclude that a transformation of the relationship occurs during adolescence rather than a disengagement from the family. That is, overall, adolescents' time was characterized by more direct interaction with parents, more instances where adolescents saw themselves (rather than the parent) as leading the family interactions, and an increase in positive affect in late adolescence. The authors suggested that the relative stability of dyadic time might reflect deliberate decisions to maintain intimate interactions, whether by the parents or the adolescents, in the face of declining family time.

Lam, McHale, and Crouter (2012) found support for the notion of relationship transformation with their findings of a similar decrease in social time (i.e., time spent with a parent and other family member), but a curvilinear relationship in dyadic time. With a sample of married, European American families with at least two children (8 – 18 years old), they measured children's daily activities over a one-week period at five time points via telephone survey and used multi-level modeling to examine the developmental course of parent-child

shared time. The average pattern for social time (including media use as a family) showed a decline as the child grew older, but dyadic time increased during early adolescence (8 – 12 years), flattened out until age 14, and slightly declined thereafter.

Contrary to Larson and colleagues' (1996) findings, in a relatively early study, Dorr, Kovaric, and Doubelday (1989) found a positive relationship between child age and television co-viewing. Using a cross-sectional sample of American parents and their 2<sup>nd</sup>, 6<sup>th</sup>, or 10<sup>th</sup> grade children, Dorr and colleagues examined the frequency of co-viewing several popular family-based television programs, along with parental and child viewing preferences. These researchers concluded that parent-child co-viewing is motivated by parents' positive views of television or the content and shared viewing preferences between child and parent. They found that child age was positively related to co-viewing behaviors as co-viewing family shows increased with age.

Similarly, Crosnoe and Trinitapoli (2008) found that families watched more television together as the child grew older, if they were not generally "uninvolved." These researchers categorized families at two points in time via cluster analysis based on types of shared time activities (i.e., TV watching, cultural events, physical recreation, or educational activities). Using longitudinal data from the 1997 and 2002 Child Development Supplement (CDS) subsamples of the Panel Study of Income Dynamics (PSID), a representative sample of US families, the researchers identified five profiles (i.e., TV-focused, private, outdoors, cultural, and sports/education) when the children were 7-12 years old, which were compared to the five profiles (i.e., uninvolved, TV-focused, outdoors, public, and education-focused) found during the transition to adolescence (12-17 years old). At both time points, the TV-focused profile, which consisted of families who spend more than average amount of time watching TV together and lower than average levels of other activities was the second most common profile behind

“outdoors” (37%) during middle childhood and “uninvolved” (44%) during adolescence. In fact, researchers concluded that “all types of parent–child relationships became more TV-focused parent–adolescent relationships, even those parent–child relationships that had once been the most active outside the home,” as families were most likely to move into “TV-focused” profiles if not the “uninvolved” profile (p. 43). Although the transition to adolescence was coupled with a decrease in shared time with parents, the popularity of shared TV time when spending time together suggests special opportunities for relationship development or renegotiation of the parent-child relationship.

Dubas and Gerris (2002) also found an increase in television time among parent-child dyads with older children. Using a longitudinal Dutch sample, researchers measured shared time in four activities: doing an activity together, watching TV, going somewhere, and eating a meal together, with the first wave of children being 9-17 years old and the second wave five years later. Over the five year period, parents reported on average sharing increasing time with their kids in all of the activities except for going somewhere. Most importantly, shared *television* time showed the largest increase over time (an additional 26 minutes/week compared to +10 min doing something together and +8 min eating together). Within the first wave when the children were 9 – 17 years old, “parents spent increasingly more time watching television with their older adolescent children, which appears to level off at 14 to 15 years of age” (p. 420). Additionally, within cross gender pairs (i.e., mother-son & father-daughter), pubertal status mediated the relationship between child age and shared television viewing; with parents sharing more TV with their children who are more advanced in pubertal status. Larson and colleagues (1996) also found a mediating effect of puberty, but only for boys in younger adolescence (5<sup>th</sup>-8<sup>th</sup> grade).

As a whole, these findings suggest that both age and child gender influence the selection of shared media time among parent-child dyads. The parent-child relationship goes through a renegotiation in terms of shared time; however, it remains unclear whether there is an increase or decrease in shared television time with child's age. Dubas and Gerris (2002) speculated that the difference in findings may be due to the limited measurement of TV-viewing time in Larson's study (i.e., 7:30-9:30pm) or the lower number of televisions in the average Dutch home compared to American homes. The discrepancy could also be due to sampling method and differing reporters, with parents reporting more shared time than adolescents (experience sampling with adolescents compared to parental surveys).

In terms of co-use of video games, there are mixed results with regard to the effect of child age. While some studies have found a negative relationship between child age and co-gaming (Gentile, Nathanson, Rasmussen, Reimer, & Walsh, 2012; Shin & Huh, 2011; Nikken & Jansz, 2006), recently Martins, Matthews, & Ratan (2015) found no significant relationship between child age and co-playing video games. The lack of clarity in both the shared time and parental mediation literatures indicates further investigation is warranted.

**Intentional use of media for family maintenance.** Shared media time could be influenced not only by the child's age, but by the role of media in the home. From a family systems perspective, using media within the home has the potential to make the system function more smoothly (e.g., toddler watches Sesame Street to allow dad to cook dinner) or to cause disruption in the system (e.g., adolescent's overuse of devices creates disengagement from family activities). Relatedly, examining the ways in which parents use media in the home as a part of family maintenance is important and novel to our understanding of shared media time and its effects.

Some parents expressly use media time to bond with their children or stay connected to their lives (e.g., Nabi & Krcmar, 2014; Coyne et al., 2014b). Although not a primary motive for parents of young children, Nabi & Krcmar (2014) found bonding to be one of the motives for using child-centered media. These researchers surveyed parents of children six months to five years old and assessed the influence of child characteristics and parental beliefs about media on six motives: to learn, to give the parent time to him/herself, to help child relax, to reward child, for child enjoyment, and to bond with the child. Overall, they found that parents of young children reported most often using media for child enjoyment, for educational purposes, and to give the parent time to him/herself. Albeit less frequently used, Nabi & Krcmar confirmed bonding as a distinct parental motive for using media. Given the young age of the children, it is not surprising that parents reported using media for bonding less often than these other motives.

Relatedly, other parents of very young children (3 to 27 months old) expressed shared time opportunities as a value of TV/video viewing for their child (Vaala, 2014). More specifically, Vaala found the parental belief that watching TV was a good way to spend time with the child was one of five beliefs that discriminated between mothers whose children watched 3 hours of TV weekly or more and those whose children watched less than 3 hours of TV each week. Thus, parental views about using media to bond with the child may increase shared exposure.

It is possible that for parents of tweens and teens, the desire to use media to bond with or reward the child may be stronger than for parents of young children, given the renegotiation in the parental relationship during the child's adolescence. Evans, Jordan, and Horner (2011) conducted qualitative interviews with parent-child dyads to gauge barriers to implementing the suggested 2-hour-a-day TV rule from the American Academy of Pediatrics. Parents of 6- to 7-

year-olds, 9- to 10-year olds, and 12- to 13-year olds discussed the possible challenges to limiting their children to 2 hours of television per day. One such challenge was the fact that co-viewing provided an opportunity for parent-child communication and shared time. These parents used joint TV time to gain insight into their child's day or provide a catalyst for discussing important topics. For example, one mother of a 9- to 10-year-old noted,

See, my son's the type you have to drag things out of him as far as what happened in school or, you know, what's going on. He never says anything. Now if we're watching a show or something and something comes up, you know, he may mention, "oh that happened, you know the other day." So it kind of keeps me abreast of what's going on with that age group, you know (p 1235).

This parent is expressing a family system maintenance goal met through shared TV time; she uses the time spent watching TV with her son to gain parental knowledge and feel more informed about his cohort. Serving a different system-maintenance goal, parents in this study also expressly used media to regulate their child's behavior by providing or denying media as a reward or punishment. These findings support Goodman's (1983) call to examine "TV use as a tool to understand family interactions" (p. 406). Goodman believed that the social uses of television could help researchers better understand family functioning. However, when operationalized, Goodman's recommendation was most often placed in the context of parental attitudes about media content and parental regulation (e.g., Christopher, Fabes, & Wilson, 1989), rather than looking at "TV as a component in family interaction" (p. 407).

Taken together, these descriptive analyses tell us that some parents in fact intentionally use shared media time to bond with their children. Further empirical data is needed to document

and explore the possible moderating role of such goals on shared experiences. How does this shared time affect the parent-child relationship?

### **Family Outcomes Predicted by Shared Time with Media**

In their longitudinal study of Dutch families, Dubas and Gerris (2002) found that father-child dyads' time 1 levels of coviewing were negatively related to time 2 levels of conflict, even controlling for initial conflict levels. However, there was no such relationship for mother-child dyads. With regard to more positive aspects of family relationships, Zabriskie and McCormick (2001) evaluated family leisure activities and their connection to family cohesion and adaptability in an American undergraduate sample. They distinguished between core and balance leisure patterns, with the former being predictable activities that foster connectedness among family members, and the latter being novel activities that challenge families to work together and adapt. Both core (i.e., family dinners, home-based TV and video watching, games and yard activities) and balance activities (e.g., community-based events, outdoor activities, tourism) were positively associated with family cohesion (the emotional connection among family members) and adaptability (the family's flexibility in leadership and rules). Core activities were more strongly positively related to family cohesion than were balance activities. This suggests that joint media activities positively support family cohesion.

Padilla-Walker, Coyne, and Fraser (2012) investigated the nature of family media use and found a positive association between specific media activities and family connectedness. Also drawing on family systems theory, these researchers used the family as the unit of analysis, creating latent variables from adolescent (13-16 years old) and parent cross-sectional reports. Family media use consisted of how often each member reported doing the following with a teen/parent: text or call, email, use social networking sites, watch TV/movies, and play video

games. These five behaviors captured the spectrum of shared media time, however, most families reported watching TV/movies or texting/calling as the most common shared media activities. These activities, in addition to co-playing video games, had significantly positive associations with family connectedness, assessed as child and parent reports of having warm, supportive relationships with each other (text/call:  $\beta = .27$ ; watching TV/movies:  $\beta = .25$ ; playing video games:  $\beta = .35$ ).

Coyne, Padilla-Walker, Fraser, Fellows, & Day (2014b) re-examined the same "Flourishing Families" data set. They conceptualized *positive family media use* as a latent variable measured by parents' and teens' reports of how often the family did the following: watch TV together, use media as part of family traditions [e.g., watch a certain movie on Christmas Eve or birthdays], use media as a reward [e.g., go out to the movies as a reward for getting good grades], and use the media to talk about serious issues with their child/parent [e.g., death, sex, drugs]. They found a cross-sectional positive association between positive family media use and adolescents' perceptions of their parents' involvement (e.g., how often the parent does activities with or in support of the child). Additionally, for boys, there was a significant positive relationship between family media use and teens' self-reported levels of disclosure to their parents. This relationship was not significant for girls; rather, for girls, family media use was positively associated with family functioning (e.g., how well the family works together or is supportive of one another). The authors explained this gender difference by focusing on the gendered differences in media consumption and types of content, in that boys consume more violent media than girls (Rideout, Foehr, & Roberts, 2010). They speculated that girls' media may be more easily included in family time, thus connected to family functioning. For boys, they

suggested that the questionable content may provide more opportunities for discussion, thereby fostering more disclosure.

There is a need for clarification of Coyne et al.'s (2014b) conceptualization and measurement of key variables. As noted above, positive family media use was measured as the extent to which families use media as a reward, in family traditions, to discuss serious issues, or watch together. This conceptualization combines both exposure activities (i.e., the frequency of watching TV together) and frequency of parental uses of media as a family maintenance tool (e.g., to discuss serious topics). Thus, the significant relationship between positive media use and perceived parental involvement (e.g., teen reports of how often the parent does activities with or in support of the child) may partly reflect the fact that both assess ways for the parent and child to spend time with one another.

Nonetheless, the few studies thus far suggest that when teens and parents share media time together, there may be benefits for the parent-child relationship. However, there are a number of important limitations to this prior research. First, the age range of children examined is rather restricted, mostly focused on adolescents. It remains unclear whether and how the associations between media use and family outcomes vary by the age of the child.

Second, there is no explicit examination of the mechanisms by which shared media time may contribute to the warmth/strength of the parent-child bond. Coyne et al. (2014b) reported that parents said that, “simply being entertained, laughing together, and enjoying the media together was positive and brought them closer” (p. 680). Padilla-Walker and colleagues (2012) suggested that the time together with media might promote a shared reality, shared understanding, collective history, or it could work via co-orientation (i.e., shared attention and evaluation; p. 428). The opening descriptions of memorable media moments suggest that

discussions created during shared media time are crucial to the bonding between both parents and children.

The current study is intended to build on the work of these scholars. The primary questions are whether, how, and under what circumstances shared media use predicts positive family outcomes.

### **The Current Study**

The current project focuses on two family variables conceptualized as possible outcomes of shared media time – parent-child closeness and amount of disclosure by the child to the parent.

Parent-child closeness is linked to parenting behaviors (as a component of the authoritative parenting style; Baumrind, 1966; Olivari, Tagliabue, & Confalonieri, 2013) as well as child outcomes (Harris et al., 2015; Choo, Sim, Liau, Gentile, & Khoo, 2015). For example, Choo et al. (2015) examined the connection between parent-child closeness and pathological symptoms of video gaming in a sample of Singaporean students (3<sup>rd</sup>, 4<sup>th</sup>, 7<sup>th</sup>, and 8<sup>th</sup> graders). These researchers found higher levels of parent-child closeness at T1 were associated with fewer pathological symptoms of video gaming (e.g., damage to schooling, damage to relationships, withdrawal) one year later. Harris et al. (2015) found cross-sectional, though not longitudinal, relationships between parent-child closeness and 12- to 16-year-olds' self-esteem. The authors argued that although parent-child closeness did not significantly predict *changes* in self-esteem over time, the cross-sectional association between closeness and self-esteem still mattered, given the centrality of self-esteem for mental health and well-being.

Child disclosure is also an important aspect of the parent-child relationship, as it is one way for parents to obtain information important to parenting. Child disclosure refers to voluntary information provided by the child to the parent about his/her life; the mother who said that watching television with her son allows her to know more about his life is describing child disclosure during the shared media time. As children grow up and spend less time with their parents, parents must find alternative methods to gaining knowledge about what is happening in the child's life. Research has shown adolescent disclosure to be an important aspect of parental knowledge (Stattin & Kerr, 2000; Kerr & Stattin, 2000; Soenens, Vansteenkiste, Luyckx, and Goossens, 2006). In fact, in a longitudinal study with Swedish adolescents and their parents, Kerr, Stattin, and Burke (2010) found that disclosure was the strongest contributor to parental knowledge over time compared to monitoring behaviors (i.e., solicitation or control). These researchers found a significant bidirectional relationship between disclosure and parental knowledge. This means that the more teenagers spontaneously disclose information about their lives, the more parents know about their general whereabouts, and the more parents know about their child's activities and whereabouts, the more likely the teen will disclose information about themselves (measured over a two-year period).

There is also evidence that adolescent disclosure is reciprocally and negatively related to levels of delinquency. Kerr et al. (2010) also found that the more delinquent teens were, the less they disclosed information to their parents, and the less they disclosed to their parents, the more they reported delinquent behaviors two years later. Similarly, Harris, Vazsonyi and Bolland (2017) found a bidirectional relationship between parental knowledge and deviance (e.g., involved in physical fights, carried a weapon, smoked cigarettes) in a longitudinal sample of African-American youth (11-18 years old; over four years). Parental knowledge was negatively

associated with deviance, and deviance was negatively associated with parental knowledge.

These spirals of reinforcement suggest an important benefit to identifying possible opportunities for parents to increase child disclosure, as in shared media time.

The climate created by parenting styles may also be important for the promotion of child disclosure. Soenens, Vansteenkiste, Luyckx, and Goossens (2006) found that parents who create a climate that promotes self-disclosure do so through high responsiveness, high behavioral control, and low psychological control. Responsiveness, measured by adolescents' feelings of acceptance from their parent, was the strongest predictor of disclosure in this cross-sectional model (10<sup>th</sup>, 11<sup>th</sup>, and 12<sup>th</sup> grade Belgian students). The authors concluded that parents who create a warm and positive environment and use behavioral (e.g., set clear expectations for behavior), rather than psychological control (e.g., try to change how the child feels), are more likely to have adolescents who self-disclose. Self-disclosure was positively associated with parental knowledge, which in turn was associated with fewer reports of adolescent substance use, delinquency, and affiliation with substance-using friends. Similarly, Vieno et al. (2009) also found in a sample of Italian middle schoolers (11-15 years old) that a positive family climate (i.e., high levels of control and a close relationship) predicted more child disclosure and parental knowledge, which in turn decreased the likelihood of the child participating in antisocial behavior. Extending this logic, shared media time may serve as an example of such a climate in which children feel comfortable disclosing information about their lives or feelings. Active mediation behaviors may foster discussions about character behavior that help children discuss their own lives. Likewise, the close physical proximity along with the discussions may also provide an environment where children volunteer information about the day's activities or school

goings-on. This possible connection between shared media and disclosure requires further investigation.

In summary, both child disclosure and parent-child closeness are important indicators of the parent-child relationship, and have been positively associated with family media time (Padilla-Walker et al., 2012; Coyne et al., 2014b). Although the literature suggests parental closeness and disclosure are correlated (Soenens, 2006; Vieno et al., 2009) when measured in parent populations, parent-child closeness is a distinct conceptualization of the parent-child relationship and is similar to family connectedness (measured by Padilla-Walker and colleagues, 2012). Each outcome will be tested separately to identify the independent impact of the mechanisms.

**The Differential Susceptibility Model as an organizing framework.** While family systems theory helps guide this research, the model to be tested is derived within the framework of the Differential Susceptibility to Media Model (DSMM) of Valkenburg and Peter (2013). This model posits not only the mediating role of response states in media effects, but also the role of three types of differential-susceptibility variables (i.e., dispositional, developmental, and social) that help characterize conditional effects. Dispositional, developmental, and social variables are pre-existing, trait-like variables that can both predict media use and moderate media effects.

The tested model will substitute shared media time for “media use.” Working from left to right on the model, one set of hypotheses concerns the predictors of shared media time. Two are considered – the child's age and the parents' motives for media use. Next, shared media time is predicted to produce four response states that are conceptualized as mediators of effects on parent-child closeness and child disclosure to the parent. Finally, child age and parents' motives for media use are considered as possible moderators of the relationship between shared media

time and the four response states. Thus, this research provides a new opportunity to test the DSMM's effectiveness and further understand media use within the family context.

**Child's age as predictor of shared media time.** Family studies scholars note that research should continue to look at the ways in which family processes change as the developmental needs of the family evolve (Crosnoe & Cavanagh, 2010). Likewise, Bronfenbrenner's human ecological systems theory (1986) identified the chronosystem as an important determinant of child outcomes. This framework posits that development is a function of person and environment, within the context of a particular time. The chronosystem, which focuses on the impact of time, stresses the importance of life stages or time-sensitive adjustments made to the systems. Chronosystem influences may be seen in the proposed model if families either adjust their shared media time as a function of the child's age or if the child's age moderates the relationship between shared media time and the reported experience of that time together. Family processes (i.e., how members relate to one another) change as the developmental needs of the family change (Collins, Madsen, Susman-Stillman, 2002; Crosnoe & Cavanagh, 2010), therefore it is valuable to also investigate how the shared media time process changes with older children.

Describing the DSMM, Valkenburg and Peter (2013) define social susceptibility as "all social-context factors that can influence an individual's selective use of and responsiveness to media" (p. 267). In a similar way that parental behavior (i.e., mediation style) as a social factor can affect children's media exposure, child characteristics (e.g., age) affect parental decisions about shared media time. Thus, within this model, child age could serve two roles, that of predictor of shared media time and as moderator of the response to shared media time.

As noted earlier, there is a conflict and lack of clarity in prior research findings about age differences in shared media time across the tween and adolescent years (Larson, et al., 1996; Crosnoe & Trinitapoli, 2008). Even though the amount of family time in general tends to decrease as the child gets older (Crosnoe & Trinitapoli, 2008; Larson, et al., 1996; Lam, McHale, & Crouter, 2012), often with peer relationships consuming more time than parental relationships (Barnes, Hoffman, Welte, Farrell, & Dintcheff, 2007), the dyadic time shows periods of increase and slight decreases with child maturity (Lam, McHale, & Crouter, 2012). Changes in shared time coupled with a period in which children's personal media use increases (Rideout et al., 2010; Rideout, 2011, 2013), means more opportunities may develop for parents to share in media time. In addition, the relationship turmoil brought about by adolescents' increase in negative affect, physical maturation, hormonal flux, and cognitive abilities (Steinberg & Silk, 2006), could foster the need for more relaxing, positive interactions among parents and children, which shared media time may provide. Thus, the following hypothesis will be tested:

H1: Child's age will be positively related to shared media time.

**Bonding media use as predictor of shared media time.** Shared media time might also be influenced by the functions of media in the household. Lull (1980b) conducted ethnographic research with more than 200 families and presented two domains of family media use. The first domain, *structural uses*, included television as an environmental resource (e.g., as background noise or a virtual companion) and as a behavior regulator (e.g., punctuating mealtime or bedtime). *Relational uses* of television, the second domain, consisted of communication facilitation, affiliation/avoidance, social learning, and competence/dominance. With communication facilitation, Lull described the ways in which families use television to create or move along conversations in addition to clarifying personal attitudes and values. Similarly,

affiliation/avoidance described TV's ability to bring families together to watch and discuss, while at other times it is a social distractor providing an escape from interpersonal interactions. Social learning captures its ability to not only teach families through behavior modeling, but also to reinforce social values. Finally, competence/dominance describes instances where families use the information from television to demonstrate their competence or regulate television use so as to maintain a dominant role (e.g., parent regulating child's access).

While these six social uses of television are helpful in describing possibly differing families, empirical research testing the accuracy of these labels appears to be absent from the literature. Applying these uses to categorize parents and understand the impact on shared media time will add to Lull's conceptualization. As discussed earlier, Coyne and colleagues (2014b) assessed "positive family media," as the frequency with which families watch TV together, use media as part of family traditions, use media as a reward, and use the media to talk about serious issues with their child/parent. Once shared media time (i.e., watching TV together) is separated out of this latent variable, the remaining items can be the foundation for a new variable measuring the use of media in the home for various relational maintenance purposes. The current study will build on these items (i.e., "as a part of family traditions," "as a reward," "to talk about serious issues") and those drawn from qualitative responses in studies by Coyne et al. (2014b) and Evans, Jordan, and Horner (2011) to explore the frequency with which parents use media to strengthen family relationships (i.e., bonding media use).

If parents are more likely to use media for relational uses in the home as described by Lull (1980b), it is likely that they will more frequently share media time with their child because it supports their larger relationship goals. For example, if a parent uses television "for the

construction of desired opportunities for interpersonal contact” (p. 203) with his/her child, then we may see an increase in shared media time. Thus, the following hypothesis will be tested:

H2: Parental bonding media use will be positively related to shared media time.

**Shared media time and family outcomes.** As noted earlier, previous research found that shared media time is positively associated with adolescent disclosure and perceptions of family connectedness (Padilla-Walker, Coyne, & Fraser, 2012). The current study is partly designed to replicate these key findings. Based on the prior research, the hypotheses are,

H3: Shared media time will be positively related to parental reports of child disclosure.

H4: Shared media time will be positively related to parental reports of parent-child closeness.

**Mediating paths: Four response states.** This research focuses on exploring the mechanisms involved in family media time’s association with the parent-child relationship, as reflected in closeness with and amount of disclosure from the child. In the absence of one theory that would explain the positive results of shared family time, the current research uses a combination of Vorderer’s (2004) model of media enjoyment and empirical evidence supporting active mediation and affectionate physical contact placed within the framework of the DSMM to postulate the underlying mechanisms of shared media time. That is, it is anticipated that shared media time will positively predict these four mediators, and that these in turn will predict more child disclosure and greater parent-child closeness. (Formal statements of these hypotheses appear at the end of this section.)

**Talk: Active Mediation.** Most prior research that examines parental discussions around media focuses on active mediation, which consists of discussing media content or characters with

the intent of altering the child's interpretations of or responses to media content (Valkenburg, et al., 1999; Nathanson, 1999). In both survey and experimental analyses, researchers have documented positive effects of mediation on children (Austin, 1993; Nathanson & Yang, 2003; Buijzen & Valkenburg, 2005; Rasmussen, 2014). Active mediation is presumed to be effective because the parent draws the child's attention to the content (Coyne et al., 2014a), clarifies information, increases the salience of the messages on the screen, or changes the child's normative evaluation of the content (Ruh Linder & Werner, 2012). Engaging in active mediation can change the child's cognitive (e.g., perceived reality of content; An & Lee, 2010) or behavioral outcomes (e.g., school performance, aggressive behavior; Gentile et al., 2014, Ruh Linder & Werner, 2012).

In the current project, it is expected that shared media time might increase the amount or frequency of active mediation that would occur, and that this in turn, might foster more disclosure and greater parent-child closeness.

***Talk: General talk.*** There is little quantitative research on the other types of discussion that may occur while viewing, including seemingly idle chatter about real life situations that may be sparked by the media content. Qualitative data suggests that parents may enjoy these discussions because they provide insight into the child's life (Evans et al., 2011) or foster emotional bonding with the child (Takeuchi, 2011). It is likely that discussions about something in life related to the content can provide opportunities for parents and children to share with one another and strengthen their relationship. This type of talk is different from active mediation as the intent of mediation behaviors is often to buffer children from negative effects of media or to enhance positive effects (van der Voort, Nikken, & van Lil, 1992; Austin, Bolls, Fujioka, & Engelbertson, 1999).

In the current project, it is expected that shared media time might increase the amount or frequency of general talk that would occur, and that this in turn, might foster more disclosure and greater parent-child closeness.

***Affectionate Physical Contact.*** Another possible mechanism for positive effects is the opportunities for affectionate physical contact afforded by television watching (e.g., snuggling with a child) or video game playing (e.g., high-fiving and hugs during play). The act of cuddling or caressing an infant not only has positive outcomes for the child's development (Field, 1995; Feldman & Eidelman, 2003; Field, 2010), it also creates a physiological change in the parent (Feldman et al., 2010), which may be connected to more positive parenting. Feldman and colleagues (2010) found that mothers high in affectionate contact (e.g., cradling the child, caressing, kissing, poking, patting) relative to those who are low showed an increase in oxytocin levels after a 15-minute parent-child interaction. Oxytocin, a hormone that is usually associated with childbirth and postpartum lactation, has also been connected to social bonding and the development of affiliative bonds (Ross & Young, 2009; Feldman, 2012). To my knowledge, little empirical research has been done on the prevalence of cuddling behavior among parents with older children; however, physical affection (e.g., hugging and kissing when displayed by fathers) is one dimension of parental support that has been specifically linked to girls' reported self-esteem (Barber & Thomas, 1986). In addition, touch research documents the ability of physical contact to convey emotion within social relationships (Field, 2010) and therefore affect relationships.

There is also experimental evidence linking physical contact (e.g., hand holding, hugs) with decreased physiological responses to stress (Grewen, Anderson, Girdler, & Light, 2003) among cohabitating couples, and protection from infection and illness-related symptoms in

individuals (Cohen, Janicki-Deverts, Turner, & Doyle, 2015). Grewen and colleagues (2003) assigned participants to a warm-contact or no-contact group after assessing their baseline blood pressure and heart rate. The warm-contact group was asked to sit on a loveseat and to be touching in a comfortable way, while discussing a positive shared experience that brought them closer as a couple for 4 minutes, after which they watched a 5-minute segment from a romantic video. At the conclusion of the video, the researcher asked the couple to hug (for 20-seconds), and then the participant was taken to another room to complete a stressful public speaking task. Participants in the no contact group sat alone for 10 minutes, then stood alone for 20-seconds. The results indicated lower blood pressure and heart rate levels during the speech for participants who had experienced warm contact rather than no contact. Such findings suggest that physical contact from a loved one may contribute to decreased negative reactions to stress. Given the increased stress levels of adolescents (Larson, 1995) and their parents, physical contact during shared media time may help bring them closer.

In the current project, it is expected that shared media time might increase the amount of affectionate physical contact that would occur, and that this in turn, might foster more disclosure and greater parent-child closeness.

*Positive Affect.* Happiness experienced while viewing TV or playing a video game with one's child could also be a mechanism that brings about positive relationship outcomes. Offer (2013) tested the effect of family time on adolescents' emotional well-being. Using a time diary with experience sampling method (ESM), 11- to 18-year-olds recorded their activities, companions, and affective state throughout a one-week period. With regard to the child's well-being, Offer (2013) measured positive affect (e.g., feeling happy and good about oneself), engagement (e.g., the extent to which he/she was involved in the activity), negative affect (e.g.,

feeling angry or frustrated), and stress. Family time was coded as activities done with one or both parents as compared to alone. Aggregated leisure time (e.g., talking, watching TV, sporting activities) spent with both parents was related to more positive affect ( $b = .11$ ) and greater engagement ( $b = .15$ ). When spent with mom only, it was also connected to fewer reports of stress ( $b = -.07$ ). These findings suggest that when adolescents are involved in leisure activities with their parents, they feel more positive and are more engaged than when they experience them alone. The positive feelings from the child may also influence the parent's emotional response.

With regard to the parent's experience, Vorderer, Klimmt, & Ritterfeld's (2004) model of enjoyment from media experiences provides useful insight as to why shared media time might create positive affect. These researchers identified three categories of prerequisites to explain users' enjoyment from media entertainment: characteristics of the media itself, characteristics of the user, and motives of the user. Characteristics of the media include technological or design features that may create presence or interactivity, and content that is meaningful and draws the consumer in. Characteristics of the user include suspension of disbelief, empathy for the characters, ability and desire to relate to the characters, a sense of being in the narrative, and interest in the topic or knowledge domain.

Finally, Vorderer et al. identified three motives that are hypothesized to predict media enjoyment: desire to escape from social reality, mood management, or to experience a challenge (usually in an interactive media experience). Most crucially, the implication is that fulfillment of these desires/motives creates positive affect in the form of enjoyment. With regard to parent-child shared media use, it is possible that enjoyment could arise from fulfillment of these particular motives. For example, parents may watch television with their children to escape the stresses of their work lives. However, it is also possible that positive affect would arise from

fulfillment of the desire to spend time with one's children or the desire to see one's children feel happy. Thus, shared media time provides ample opportunity for combinations of characteristics and motives, which would predict enjoyment from the media experience.

Taken as a whole, I will test the following mediating hypotheses:

H5: The positive relationship between shared media time and perceived child disclosure will be mediated by:

- a. active mediation behaviors during shared media time
- b. general talk during shared media time
- c. physical contact during shared media time
- d. positive affect experienced during shared media time

H6: The positive relationship between shared media time and parent-child closeness will be mediated by:

- a. active mediation behaviors during shared media time
- b. general talk during shared media time
- c. physical contact during shared media time
- d. positive affect experienced during shared media time

**Moderators of responses to shared media time.** One of the key aspects of the Differential Susceptibility to Media Model is (as the name suggests) the emphasis on differential susceptibility. That is, it is important to consider the conditions under which shared media time has stronger or weaker effects on the four hypothesized response states, and thereby stronger or weaker effects on disclosure and closeness. The two predictors of shared media time – child age and parents' use of media to bond – are also considered as potential moderators of the effects of

shared media time. As Valkenburg and Peter (2013) noted, dispositional variables “predispose the selection of and responsiveness to media, including gender, temperament, personality, cognitions (e.g., scripts and schemata), values, attitudes, beliefs, motivations, and moods” (p. 226).

*Child's age.* Normative changes in parenting based on child’s age can be considered a social context that makes some dyads differentially susceptible to the effects of shared media time. More specifically, Collins, Madsen, and Susman-Stillman (2002) noted that middle childhood brings increased cognitive capacity, social networks, vulnerability to stress, and self-regulation. These key developmental changes that occur during middle childhood often affect parenting. For example, increased reasoning abilities in 7- to 8-year-olds creates a change in parental explanations and justifications for rules in order to have the same impact as when the child was a toddler (Collins, et al., 2002). Likewise, greater cognitive ability, which includes the beginning of metacognition that comes with adolescence (Steinberg & Silk, 2006) may create conversations that can take on greater depth and more equal interactions. Parents are able to discuss serious issues brought up by media content while watching with adolescents that their tween or preschool children cannot fully comprehend. These changes to the parent-child relationship may strengthen the connection between shared media time and discussion.

Researchers have documented the increase in negative affect that comes with adolescence (Larson et al., 1996). This increase in general bad moods often affects the parent-adolescent relationship as parents must learn to renegotiate disequilibrium brought on by their negative teen (Steinberg & Silk, 2006). Larson and colleagues (1996) found a curvilinear relationship between age and general affect experienced while with family. In early adolescence (i.e., between 6<sup>th</sup> and 7<sup>th</sup> grade), adolescent’s level of positive affect with family decreased (e.g., became more

unhappy, irritable, or angry) and increased in late adolescence (i.e., between 8<sup>th</sup> and 9<sup>th</sup> grade for boys, and 10<sup>th</sup> and 11<sup>th</sup> grade for girls). In addition to negative affect, teens' physical development may indicate more maturity that is not always matched with cognitive maturity, leading parents to underestimate their adolescent's needs (Steinberg & Silk, p. 106). Thus, it is likely that parental reactions to negative mood may attenuate the relationship between shared media time and positive affect. The teenager's general depressed mood will dampen the positive affective response of sharing the experience with their parent.

Larson (1995) noted, "the liminal period of adolescence, then, might be thought of as a period when a person has multiple and fragmented conceptions of who he or she is, and, concurrently, a time when responsibility for emotional self-regulation is being transferred, albeit sometimes precariously, from parent to child" (p. 538). This unstable time of self-exploration and self-regulation, combined with a need for autonomy can also increase the distance between parent and child (Steinberg & Silk, 2006). Coupled with the physical changes that happen during adolescence (i.e., puberty), the distance may have a negative impact on the likelihood of cuddling or affectionate physical contact between parents and their adolescents. Thus, the relationship between shared media time and physical contact will be weakened by child's age.

The proposed research will examine the following moderation:

H7: Child's age will moderate the relationship between shared media time and responses to the activity such that:

- a. It strengthens the effect of shared media time on active mediation.
- b. It strengthens the effect of shared media time on general talk.
- c. It weakens the effect of shared media time on physical touch.

- d. It weakens the effect of shared media time on positive affect.

***Parental bonding media use.*** If parents use media to talk about life issues or as a part of family traditions in the home then it seems plausible that they will be more engaged in the shared media experience with their child. That is, the relationship between shared exposure and positive affect or discussion may be stronger for those parents who intentionally use television for communication facilitation. Having the television on may break the silence in a room where a mom wants to engage with her teenager and provide a springboard for conversation. In this instance, the parent's social use of television would likely enhance the effect of shared media time on the response variables (i.e., positive affect, discussion, and affectionate physical touch) because the experience is in line with his/her motivations. Thus, I will test the following hypothesis:

H8: Parental bonding media use (BMU) will moderate the relationship between shared media time and responses to the activity such that:

- a. It strengthens the effect of shared media time on active mediation.
- b. It strengthens the effect of shared media time on general talk.
- c. It strengthens the effect of shared media time on affectionate physical contact.
- d. It strengthens the effect of shared media time on positive affect.

***Moderation by Child Gender?*** Finally, based on previous research, it is possible that child's gender will influence the frequency of shared media time or the effects of shared exposure. Connell, Lauricella, and Wartella (2015) found that parents of young children (8 years and younger) co-viewed television with daughters more than sons. However, Padilla-Walker et al (2012) found no gender differences in frequency of shared television and video game time

between adolescents and their parents. Larson and colleagues (1996) found girls reported more frequently talking with their parents than boys, and girls talked more about interpersonal topics than boys. Finally, Coyne et al. (2014b) found a significant impact of positive family media use on disclosure for boys, and perceptions of family functioning for girls. Taken together, these results suggest child gender could predict shared media time, however, it is unclear how child gender might affect the mediation model. Thus, the following research question will be explored:

RQ1: In what way does child gender moderate the mediation model?

### **The Conceptual Model**

As shown in Figure 1, the hypotheses articulated in this model position disclosure and closeness as outcomes of shared media time via response states. In fact, family systems theory suggests that reciprocal causality is most likely. That is, shared media time could influence the parent-child relationship, which in turn could drive amount of shared time. Indeed, in their longitudinal study, Dubas and Gerris (2002) found that initial conflict between parents and children predicted reduced time spent together 5 years later. However, these associations varied by type of activity. Time 1 conflict was associated with reduced total time together, time spent eating together, and time spent "doing something together." However, TV viewing showed different patterns of association. Time 1 conflict did not predict subsequent TV viewing, rather, initial levels of TV viewing were negatively associated with time 2 conflict levels. Thus, shared media time may function differently than other shared activities. As the authors noted,

These results, coupled with the finding that parents and adolescents continue to share TV viewing as a joint activity, highlight the potential importance of and need for more

microanalytic studies on the family interactions and discussions that occur during and as a result of shared television viewing. (p. 424)

The proposed research aims to respond to such a need.

## Methods

### Sample

The sample consisted of parents who are US citizens, over 18 years of age, with a child between the ages of 3 and 17. Quotas were used for child age to ensure an adequate distribution of ages (3-6, N=627), school-aged (7-11, N=431), and teens (12-17, N=523). Participants were recruited from Mechanical Turk (mTurk), an online workforce in which individuals receive small financial compensation for completing short tasks (e.g., coding, transcription, surveys). There were 4,550 people who accessed the survey, 2,951 were screened out (i.e., not a parent with child in the specified age range, N=2,760) or removed (e.g., missing on outcome variables or did not complete, N=191), thus, 1599 were included in the analysis.

**Comparisons of sample characteristics with census data.** Parent age ranged from 18 to 75 ( $M=35.64$ ,  $SD=8.04$ ) and the majority of respondents were mothers (64%). Compared to US 2010 Census data, the sample over-represented non-Hispanic Whites (76% vs. 64% nationally) and under-represented African-American (8% vs. 13% nationally), Hispanic (6% vs. 16% nationally), and Asian (4% vs. 5% nationally) populations. The sample represented the same percent of the Native American or Alaska Native (1%) population and people who identified more than one race (3%) as in the national 2010 Census population; 4% of the sample did not identify their race. In terms of education, the sample was more educated relative to the national 2010 population; 9% earned a high school degree or less (vs. 45% nationally), 41% earned an

associate's degree or had some college (vs. 28% nationally), 32% completed a bachelor's degree (vs. 27% nationally), and 15% earned a higher degree (i.e., master's, professional, or doctorate degree vs. 10% nationally). On average, families consisted of 2 children ( $SD=1.31$ ), with 41% having only one child. The target children (46% girls) ranged from 3 to 17 years old ( $M= 8.90$ ,  $SD=4.63$ ).

## **Procedure**

Between April 7, 2016 and May 15, 2016, mTurk workers were asked to participate in an online survey about time with media in the home. After a few screening questions, workers who were parents of children ages 3-17 completed the survey and received a small financial compensation upon completion (51 cents). In order to focus the parent's attention on one child only throughout the survey, personalized information was populated into the survey. Parents provided the first initial for their child between 3 and 17 years old who had the most recent birthday. Throughout the remainder of the survey, the questions referenced this child only by his/her initial. In addition, for the media exposure questions, parents first listed the three television shows and three video games they most frequently watch/play with the target child, in an effort to get the parent to think about these shared media times specifically. They also reported the last three movies they watched together at home. In the questionnaire, the title of the most *frequently* watched television show or most *frequently* played video game was auto-filled in future questions about affect, discussion, and physical contact. Parents were first asked about their experiences watching this specific show or playing this specific game. Later, they reported their level of affect, discussion, and physical contact *in general* while watching television or playing video games with the target child. Thus, for all of the response variables,

parents reported both on their reactions while watching specific shows/games, and while watching or playing with the target child in general.

## Measures

### **Predictors and Moderators.**

***Shared media time.*** Participants reported the frequency with which they share media with the target child in two different ways. The first way, participants were asked about the *amount* of time they specifically spend watching television/movies and playing video games with the target child. Participants reported the number of hours per day they engaged in the shared media activity (i.e., watching television/movies and playing video games). Two summative scores were created to measure their total time per week watching television/movies (shared TV time) and playing video games together (shared gaming). The shared television and video game time variables were significantly positively skewed; therefore, a base-10 log transformation was used in all analyses. In the second way, a frequency scale, situated television and video game play within a list of other possible shared media activities. That is, participants answered 5 questions about the *frequency* with which they participate in the following activities with the target child: watch TV together, text one another, play video games together, talk on the phone, and email back and forth. Using a 7-pt scale (never, once a month, 2-3 times a month, once a week, few times a week, once a day, more than once a day), parents indicated the frequency of shared media activities. Shared TV time and shared gaming were the main predictors in tests of hypotheses, however, the frequency measures help describe the nature of shared media use.

***Bonding media use.*** Based in part on Lull's (1980a) affiliation and communication facilitation typologies of social uses of television, parents rated their frequency of using

entertainment media (e.g., television or video games) for the following purposes: to enjoy family traditions, to help the family relax together, to bond with a family member, to provide common ground with a family member, and to increase family solidarity (never 1, great deal 5). In the initial factor analyses, the “family traditions” item did not sufficiently load on the common factor; therefore, it was dropped from further analyses. Maximum likelihood factor analysis confirmed a one-factor model (4 items, Eigenvalue=2.68) explaining 67% of the variance, with factor loadings ranging from .45 to .54. An average score was created across all four items, with higher scores indicating more bonding media use ( $\alpha=.84$ ).

***Child age.*** Parents were asked to think of their child between the ages of 3 and 17 with the most recent birthday. They then selected the child’s age from a list of 3 to 17.

### **Mediators.**

***Positive affect.*** Based on Larson et al. (1996), parents reported their affect during shared media time. Using seven 7-point semantic differentials (e.g., happy-unhappy, calm-frustrated, friendly-angry), parents rated how they feel when watching their most frequently shared show, when playing their most frequently shared video game, and when they watch television or play video games with their child in general (14 items per medium). The semantic differential allows parents to indicate both positive and negative feelings during viewing/playing; however, higher levels indicate more positive affect. A combined *TV affect* score was created by averaging both specific and general responses ( $\alpha=.94$ ). Likewise, a combined *VG affect* score for video games was created by averaging both specific and general responses ( $\alpha=.96$ ).

***Active Mediation and General Talk.*** Based on previously validated active mediation measures (Valkenburg, et al., 1999), three items asked parents how often they “try to help [their]

child understand what s/he sees on TV,” “point out why some things actors do are good,” and “point out why some things actors do are bad” (never 1, every time 5). In addition, three items were added to capture conversations about the content in general or unrelated issues (i.e., “talk about what you are watching,” “talk about topics related to what you see on the screen,” “talk about topics NOT related to what you see on the screen”). Parents responded to all six of these items in reference to watching television in general and when watching their most frequently shared show. In the initial analyses, the item that focused on discussion of topics unrelated to the media content did not load on either factor and was dropped from the analysis, thus the subsequent factor analysis included 10 items. Maximum likelihood factor analysis with promax rotation revealed a two-factor model for discussion during shared TV/movie time, explaining 71% of the variance (see Appendix). The first factor (6 items, Eigenvalue=5.71) was in line with Valkenburg and colleague’s measurement capturing parental *active mediation*, with items focused on helping children understand what they see or pointing out good or bad character behaviors. The second factor (4 items, Eigenvalue=1.45) captured parental *general talk*, with items focused on discussing the content and topics related to what they are watching. The two factors were correlated with one another ( $r=.61$ ). Nonetheless, given the two-factor structure and the conceptual distinction between active mediation and other types of discussion, two TV scales were created: *active mediation* ( $\alpha=.92$ ) and *general talk* during shared television viewing ( $\alpha=.86$ ).

Similarly, 4 items were used to capture discussion during video game playing. Based on Martins & colleagues’ video game mediation research (2015), three items from the “neutral mediation” subscale were used (i.e., “discuss game plot or themes,” “encourage your child to think about a topic introduced in the game,” and “discuss how game themes relate to the child's

life”; never 1, every time 5). An item was added to capture discussion of strategies for winning the game. Parents reported how often they performed the behaviors when playing together in general, and when playing their most frequently shared video game. Maximum likelihood factor analysis with eight items revealed a two-factor model explaining 70% of the variance. The first factor (6 items, Eigenvalue=5.01) mirrored Martins and colleague’s (2015) “neutral mediation” capturing parental discussion of video games, with items focused on discussion of plots, encouragement to think about the game topics, and relating game themes to the child’s life. The second factor (2 items, Eigenvalue=1.16) focused on discussion specifically about game strategy. The two factors were correlated with one another ( $r=.58$ ). Given the two-factor structure, responses within each factor were averaged to create two video game discussion scales, with higher scores indicating more discussion (*game discussion*:  $\alpha=.93$ ; *strategy discussion*:  $r=.73$ ).

***Physical contact.*** This variable measured the frequency of physical contact between parent and child during shared media exposure. Parents reported how often they did the following with the target child while watching their most frequent shared show and game and while watching television or playing video games in general: cuddle together, sustain physical contact, high five one another, and have their child on their lap (never 1, every time 5). For the television watching questions, the list of items also included “hold hands.” Maximum likelihood factor analysis confirmed a one-factor model for physical contact during shared TV explaining 66% of the variance, with factor loadings ranging from .74 to .91; the “high five” item was dropped due to poor factor loadings. Similarly, a one-factor model for shared video game contact was confirmed explaining 69% of the variance, with factor loadings ranging from .75 to .89. An average physical contact score was created across all items for each medium, with higher scores indicating more contact (TV:  $\alpha=.94$ ; Video games:  $\alpha=.93$ ).

### **Outcome Variables.**

***Child disclosure.*** Based on a measure from Kerr and Stattin (2000), child disclosure assessed the extent to which the child talked to the parent about things happening in his/her life. Parents reported their child's level of disclosure using six items including: "talk at home about how he/she is doing in different subjects in school," "keep a lot of secrets from you about what he/she does during his/her free time," and "tell you about her/his friends" (never 1, very often 5). Two items measuring keeping secrets were reverse coded and the mean disclosure score was created from all six items, with higher scores indicating more disclosure ( $\alpha=.75$ ).

***Parent-child closeness.*** Using a measure similar to Marceau, Ram, and Susman (2014)'s adaptation of the closeness subscale of the Child-Parent Relationship scale (Driscoll & Pianta, 2011), parents evaluated the level of warmth, affection, and open communication in their relationship with the target child. Each participant rated how well each of the seven statements applied to their relationship (not at all 1, very well 5). Sample items included: "I share an affectionate, warm relationship with my child," "It is easy to be in tune with what my child is feeling," and "my child values his/her relationship with me." The additive scale (per scale instructions) showed significant positive skew; therefore, each item was dichotomized with those selecting 5 ("very well") as the cut off. Transformed items were summed to create a *parent-child closeness* measure ( $\alpha=.88$ ). The transformed variable ranged from 0 to 7 with higher values indicating more closeness.

### **Covariates.**

***Shared non-media time.*** Similar to shared media time, two measurement strategies were adopted to assess shared time in activities not focused on the media. First, parents were asked

how often they did the following activities with the target child: participate in leisure activities, participate in religious activities, perform household chores, and eat together. Using a 7-pt scale (never, once a month, 2-3 times a month, once a week, few times a week, once a day, more than once a day), parents indicated the frequency of shared non-media activities. Next, parents reported the number of hours per week they spend doing those same activities with the target child (e.g., leisure activities, religious activities, eating together). A summative scale based on the daily number of hours was created to measure weekly *shared non-media time*. Due to the significant positive skew of this variable, a log-base 10 transformation was calculated and used in all analyses.

***Ease of separate viewing.*** Given the various household make ups and varying degrees of device access across homes, parents were asked to indicate how easy or difficult it is for the target child to watch separately from them for four reasons: the rules of the house, the child's knowledge or ability to work the television on his/her own, the number of separate devices in the home, and the availability of separate rooms to use to watch television/movies. Parents rated each reason on a 5-pt scale anchored by "extremely difficult" (1) and "extremely easy" (5). A composite measure was created by averaging the four ratings, with higher scores indicating greater ease of separate viewing ( $\alpha=.83$ ).

***Devices in the home and bedroom.*** Parents indicated the number of devices present in the home and in the target child's bedroom. They indicated how many TVs, DVD players/VCRs, computers (including desktops and laptops), tablets (e.g., Kindle, iPad, Leapster), and video game consoles (e.g., Xbox, Playstation, Wii). A total *home* and *bedroom* count were created by summing the number of devices. Log-base 10 transformed totals were used in the analyses to adjust for positive skew.

*Demographics.* Parents indicated their age (in years) and gender, as well as the child's gender. Parents also indicated their racial/ethnic background, highest level of education completed, and number of children.

## **Data Analysis**

In order to provide a fuller picture of the shared media experience, I begin by focusing on specific portions of the conceptual model (Figure 1), moving from left to right. That is, the first section describes shared time in general, with attention paid to both non-media and media time. This includes descriptive analysis of the home media environment as well as the content parents reported sharing with their children. The next section addresses patterns and predictors of shared media time and bonding media use using regression analyses (testing the first two hypotheses). Next, I examine the patterns of the response states during shared media time to provide a sense of the frequency of shared media behaviors.

Finally, I examine the models shown in Figures 3 and 4 via eight moderated path analyses. Each outcome was tested separately using PROCESS model 8 in SPSS (Hayes, 2013) for each medium (i.e., television or video game). The decision to test the hypotheses using separate mediation analyses rather than one structural equation model was guided by the overarching exploratory purpose of this research. Prior research and a guiding theoretical framework provided the basis for the conceptual model, however, the main objective is to see which mechanisms help explain the hypothesized relationships. That is, the hypothesized mediation and moderated mediation are of prime importance rather than full model fit or comparison between multiple models. Using PROCESS in this piecemeal approach to conditional mediation analysis is in line with recommendations from Hayes, Montoya, and Rockwood (2017), and allows for exploration of what happens during shared media time. All

analyses were done with SPSS (Version 23), and z-scored variables were used to gain standardized coefficients in PROCESS. Bivariate analyses were completed first to determine zero-order relationships and can be found in the Appendix.

## Results

### Describing Shared Time

Although the focus is on shared TV viewing and video-game play, other shared media and non-media experiences are described as well, to give context for the findings.

**Amount and frequency of shared time.** Parents reported sharing about 40 hours a week with the target child across all shared activities (i.e., shared television, game time, leisure activities, religious activities, eating, and shared chores). As reflected in the means in Table 1, they spent the most time on average watching television together. In fact, a repeated measures test showed a significant difference in the amount of time spent in each shared activity [ $F=554.66$  (5,7765),  $p < 0.001$ ,  $\eta_p^2=.26$ ]. Parents reported spending about 11 hours/week ( $SD=7.80$ ) on average watching television with their child, about 10 hours/week ( $SD=10.27$ ) in other shared leisure activities (e.g., playing sports, hobbies, playing together), and 8.5 hours/week ( $SD=9.15$ ) eating meals together. In contrast, parents only reported spending about 3.5 hours a week on average playing video games with their child.

Looking at the frequency percentages in Table 1, a large majority of parents (79%) reported shared meals as a daily activity. Most of the other activities were routinely shared once or a few times weekly. For example, about half of parents reported participating weekly in shared television/movie viewing, other leisure activities, and household chores. For those parents who reported doing religious activities with their children, they also did so on a weekly basis.

While half of the parents said they never text with their child (51%), those who do text, most often do so once a day or more. The frequency of talking on the phone and playing video games together were very similar, with about one third of the parents participating in these activities weekly (32% and 36%, respectively).

**Devices and shared time.** Parents said they had an average of 10 ( $SD=4.64$ ) devices (e.g., TV, DVD player/VCR, computer, tablet, video game console), and children had on average 2 devices ( $SD=2.63$ ) in their bedrooms (85% of them have their own room). Shared television time of a specific shared show was most often done around a television set (91%), although parents and children did also watch together on laptop computers (3%), tablets (3%), desktop computers (2%), and smart phones (1%). For those who play video games together, their most frequently shared game is played on a gaming console (49%), but they also play together on computers (25%), tablets (13%), and smart phones (13%).

**What content was being shared?** Parents were asked to list the top 3 most frequently shared television shows and video games, and the last 3 movies they watched with the target child. The content was deemed identifiable if research assistants were able to find the title within the stated genre (i.e., television show, movie, video game) using 3 specific media library websites (i.e., IMDB, TV Guide, or FilmRatings). For titles that could be identified on a site, the rating was recorded. However, there was some content that did not have a rating listed on any of the three websites (4% of TV shows, 6% of movies, 24% of video games because they were apps). Thus, these were included only in overall counts of content and not in ratings analyses. Collectively, it was a diverse group of shared media: parents listed a total of 730 TV shows, 1032 movies, and 434 video games. There were no shows, movies, or games that a

majority of parents said they watched frequently or most recently, rather, most titles were repeated rather infrequently.

*To what extent do the maturity or appropriateness of the shared programs vary by child age and gender?* The television, film, and video game industries provide ratings systems to help parents to guide children to appropriate material and away from inappropriate material. Table 2 shows the distribution within each age and gender group at each level of maturity rating for each medium. It also lists the most commonly shared exemplars: those listed were among the top 10 most frequently mentioned shows, movies, or video games.

Somers' *D* was run to determine the associations between child age and maturity rating for TV, films, and games. There was a strong positive correlation between child age and TV maturity rating, ( $D = .61$ ,  $p < .001$ ), a significant positive correlation between child age and MPAA rating for films ( $D = .43$ ,  $p < .001$ ) and a relatively weak positive correlation between child age and video game maturity rating ( $D = .17$ ,  $p < .001$ ). Even for TV, where the association was strongest, there are many parents who watch content with their children that is not intended for that age group. For example, 5% of children 3-5 and 12% of children 6-10 were watching shows intended for 14-year-olds or older audiences with their parents. In addition, 8% of children 3-5 and 12% of children 6-10 were playing video games with their parents rated for mature audiences. It is possible that parents would rather co-view or co-play this type of content rather than allow the child to watch/play alone or enforce restrictions.

Child and parent gender were not significantly related to TV rating. For movies, boys were more likely than girls to coview movies rated for older audiences ( $D = -.09$ ,  $p < .001$ ). We see this mostly with PG-13 movies. There is no significant difference with regard to parent gender ( $D = -.03$ ,  $p = .18$ ) and movie ratings. For video games, boys tend to play more mature games (Teen or

Mature), and girls more frequently play the games rated for everyone (Somers'  $D = -.14$ ,  $p < .001$ ). Likewise, mothers more frequently reported playing games rated for everyone, while fathers more frequently reported playing games rated for teens and mature audiences (Somers'  $D = -.08$ ,  $p < .001$ ).

### **Predicting Shared Media Time**

Two regression analyses were run examining the impact of child, parent, relationship, and home characteristics on shared television time and shared video game play, as well as the role of bonding media use (see Tables 3 & 4).

**Predicting shared TV time.** H1 predicted that the child's age would be positively related to shared media time, however, this hypothesis was not supported for shared TV viewing. Results of a regression analysis, shown in Table 3, indicated a significant though small negative association between age and shared TV time. The quadratic and cubic trends (tested by age squared and cubed terms shown at the bottom of the table) were not significant (see Figure 2). The negative correlation between child age and shared non-media time ( $r = -.30$ ,  $p < .001$ ) is also shown in Figure 2.

As for other demographics, shared TV time was negatively predicted by parental education; more highly educated parents reported less shared TV time. There were no gender differences in shared television time for either parent or child gender. However, consistent with H2, there was a positive relationship between shared TV time and parents' use of media for relational purposes. Parents who use the media to bond with family members reported higher amounts of shared TV time. Shared television time was also positively predicted by shared non-media time. Thus, shared TV time does not appear to be displacing time spent with the child in

other leisure time activities. Counterintuitively, home characteristics that might be expected to draw children away from viewing with their parent did not function as such. That is, parents' ratings of the ease of separate viewing and whether the child had his or her own room did not significantly affect amount of shared viewing, and the number of devices in the child's bedroom was positively (rather than negatively) related to shared TV time. Also, the number of children in the household was negatively (rather than positively) related to shared TV time.

**Predicting shared videogame play.** H1 predicted a positive relationship between child age and shared media time. Results of the regression analysis shown in Table 3 indicated a non-significant linear effect but significant quadratic and cubic effects, suggesting curvilinear associations. Examination of the means by child's age (see Figure 2) indicated that reports of shared game play increased from age 3 to age 4, peaked at age 10, and then gradually declined thereafter.

In support of H2, shared video game time was positively predicted by bonding media use. That is, parents who use media to bond with family members more often, also reported higher amounts of shared video game time with their child.

There were also significant gender differences: parents of girls reported less shared gaming time than parents of boys; mothers reported less shared gaming time than fathers. Shared game time was also negatively predicted by parent age and education; more educated parents reported less shared video game time. As for home characteristics, only the number of devices in the child's bedroom significantly predicted shared game time. Counterintuitively, the number of devices in the child's bedroom again predicted more, rather than less, shared video game play. Like shared TV time, shared video game time is positively predicted by the amount of shared non-media time. In sum, H1 was not supported as child age did not positively predict shared

media time, rather it negatively predicted shared television time and showed a curvilinear relationship with shared gaming. H2, on the other hand, was supported in that parental media use for bonding positively predicted shared television and gaming time.

### **Predicting Parents' Use of Media for Bonding Purposes**

Because bonding media use predicts shared media time, and because it is hypothesized to moderate the association between shared media time and the response states, it is also valuable to understand what predicts such intentional use. Thus, even though this was not part of the overarching conceptual model, regression analyses were conducted to examine the associations between child, parent, relationship, and home characteristics and bonding media use (see Table 4).

While parent age negatively predicted bonding media use, other demographic characteristics (e.g., gender or child age) were not significantly related to parental use of media to bond. The two main predictors were shared non-media time and ease of separate viewing. Shared non-media time was positively related to bonding media use – parents with families that spent more time together reported more intentional use of media to bond. Bonding media use was even more strongly positively predicted by ease of separate viewing. This suggests a possible compensatory goal – when families can easily watch separately, parents may be more intentional about using shared media time to bring the family together. However, it is worth noting the low adjusted  $R^2$  (.07), indicating that bonding media use is largely a function of other variables not in the model.

### **Describing Response States During Shared Media Time: Talk, Contact, and Affect**

**Response states while watching TV together.** As shown in Table 5, during shared television time, parents reported engaging in general talk most frequently, followed by active mediation, and physical contact. A majority of parents reported engaging in active mediation or general talk occasionally or almost every time, whereas they reported physical contact as occurring almost never or occasionally. They also reported generally positive affect during the experience ( $M=6.10$ ,  $SD=.90$ ), and 65% rated their affect as “6” or “7” (1 negative affect, 7 positive affect).

**Response states while playing video games together.** Parents reported most frequently engaging in strategy talk during shared video game time, followed by game discussion, and physical contact. Almost three-quarters of parents (71%) reported engaging in *strategy-specific* discussion occasionally or almost every time; however, the same percentage of parents reported having *general talks* about game themes or plots occasionally or almost never. The gaming experiences were generally positive for parents in terms of affect ( $M=6.02$ ,  $SD=.99$ ), with 61% rating their affect as “6” or “7”.

### **Moderated Mediation of Relationships between Shared Media Time and Parent-Child Outcomes**

A total of eight moderated mediation path analyses were run to examine the direct and indirect effects of media use (shared television time or shared video game) on the outcomes (child disclosure or parent-child closeness) moderated by either child age or bonding media use. As previously mentioned, each model was tested separately using PROCESS model 8 in SPSS (Hayes, 2013). Results are first reported for shared TV time, then for shared videogame play.

#### **Shared Television Time and Parent-Child Outcomes**

Figure 3 shows the conceptual model for analyses of direct and indirect effects of shared television time. The model combines a number of the main hypotheses: a significant direct or total path from shared TV time to child disclosure (H3) and parent-child closeness (H4), significant indirect paths from shared TV time → four mediating response states → child disclosure (H5a-d) and parent-child closeness (H6a-d), moderation of these indirect paths by child age (H7a-d) and parents' bonding media use (H8a-d). The analyses also examine (though it was not hypothesized) whether the direct path is moderated by child age or bonding media use. All analyses controlled for child gender, parent age, gender, and education, number of children in the household, ease of separate viewing, and shared non-media time.

**Predicting response states during shared TV time.** The conceptual model proposes that shared TV time will positively predict four response states: general talk, active mediation, physical contact and positive affect. In fact, as shown in Table 6, amount of shared TV time significantly predicted amount of active mediation and amount of physical contact while viewing, but did not significantly predict general talk or positive affect while watching TV together.

There were additional predictors of responses to shared TV time. As shown in the top portion of Table 6, child age significantly predicted all response variables. Parents with older children reported higher levels of general talk and positive affect, and lower levels of active mediation and physical contact.

Child gender only significantly predicted physical contact, with parents reporting more contact with their daughters than with their sons. Parent gender, on the other hand, significantly predicted all variables except active mediation. Mothers, relative to fathers, reported more frequently engaging in cuddling and general talk, and reported more frequently feeling positive

during the shared TV time. Shared non-media time positively predicted all of the media responses: parents who spent time with their children doing other activities also reported higher levels of general talk, active mediation, physical contact and positive affect. Finally, the number of children in the household only predicted physical contact, with more children associated with less physical contact. The ease of separate viewing positively predicted general talk and positive affect.

### **Shared TV Time and Child Disclosure**

**Total, direct, and indirect paths from shared TV time to child disclosure.** As shown in Figure 3, H3 predicted a significant positive path from shared TV time to child disclosure. As shown in the bottom half of Table 6, the total and direct effects of shared television time on child disclosure were not significant, therefore, H3 was not supported.

H5a-d also proposed significant positive indirect paths from shared TV time → response states → child disclosure. The only significant indirect effect was via active mediation; thus only H5b was supported (see Figure 5). Amount of shared TV time was positively associated with frequency of active mediation, which in turn was positively associated with child disclosure. Although there was a positive association between shared TV time and physical contact, the level of physical contact was not significantly associated with child disclosure.

In sum, more shared television time predicted more child disclosure only when the parent engaged in active mediation behaviors while viewing. General talk and positive affect during shared TV viewing significantly predicted child disclosure, but were not related to frequency of shared television time.

**Child age as a moderator of indirect and direct effects of shared television on child disclosure.** H7a-d predicted that the paths from shared TV time to the mediating paths would vary by age of the child – the paths to physical touch and positive affect would be stronger for families with younger children and the paths from shared TV time to active mediation and discussion would be stronger for families with older children. In fact, as shown in the top portion of Table 6, the interaction between amount of shared TV time and child age was not significant for any of the response states (mediators). The positive indirect path of shared TV time → active mediation → child disclosure did not vary by the child's age. Thus, H7 was not supported. Nonetheless, as noted earlier, child age predicted the response states.

However, the direct path was significantly moderated (see Figure 6). Simple slopes analysis revealed a negative direct effect of shared television time on child disclosure ( $\beta = -.12, p = .003$ ) for parents with young children ( $-1SD$ ). Further probing via the Johnson-Neyman technique showed 7.5 as the upper boundary for the significance region of negative coefficients ( $\beta$ s ranged from  $-.15$  for 3-year-olds to  $-.06$  for 7.5-year-olds). This analysis also revealed a second significance region where there were significant positive coefficients. At 15.6 years, the relationship between shared TV time and child disclosure was positive ( $\beta = .09, p < .05$ ) and remained positive for older children (16.3 years:  $\beta = .11, p < .05$ , 17 years:  $\beta = .12, p < .05$ ). Thus, when the positive response states were partialled out, the amount of shared television time negatively predicted amount of disclosure by younger children; however, it positively predicted child disclosure for adolescents.

**Bonding media use as moderator of indirect and direct effects of shared TV time on disclosure.** H8a-d predicted that the paths from shared TV time to the four mediating response states would be stronger if parents reported more use of media for bonding. As shown in the top

portion of Table 7, there were two significant interactions between shared TV time and bonding media use: for general TV talk and active mediation. The index of moderated mediation indicated significant moderation of both indirect paths: shared TV time  $\rightarrow$  general talk  $\rightarrow$  disclosure (.01,  $p < .05$ ), and shared TV time  $\rightarrow$  active mediation  $\rightarrow$  disclosure (.01,  $p < .05$ ). Thus, H8 was partially supported (see Figure 7).

Despite the significant index of moderated mediation for both paths, simple slopes analyses revealed a clearer picture for active mediation than for general talk. The path from shared TV time to active mediation was only significant at high levels of bonding media use (at +1SD,  $\beta = .12$ ,  $p = .006$ ). The coefficients at M or -1 SD of bonding media use were not significant. Accordingly, the indirect path from shared TV  $\rightarrow$  active mediation  $\rightarrow$  disclosure was only significant at high levels of bonding media use.

The simple slopes analysis for general talk (i.e., examining the significance of shared TV time predicting general talk at -1 SD, M, and +1 SD of bonding media use) did not indicate any significant coefficients, despite the significant interaction term. The association between shared TV time and amount of general talk came close to significance at high levels of bonding media use (+1 SD,  $\beta = .08$ ,  $p = .08$ ). Accordingly, the indirect path from shared TV  $\rightarrow$  general talk  $\rightarrow$  disclosure was not significant at -1 SD, M, and +1 SD of bonding media use.

To summarize, the results suggest that for parents who reported higher levels of using television to bond with their child or family, shared television time more frequently included active mediation, which in turn positively predicted child disclosure. Similar results may occur via general talk, but presumably only at the very highest levels of bonding media use.

### **Shared TV Time and Parent-Child Closeness**

It was already established that shared TV time predicted active mediation and physical contact. Would these mediate an effect of shared TV time on parent-child closeness as predicted in H6 a-d?

**Total, direct, and indirect paths from shared TV time to parent-child closeness.** As shown in Figure 3, H4 proposed a significant positive path from shared TV time to parent-child closeness. As shown in the bottom half of Table 6, the total and direct effects of shared television time on parent-child closeness were not significant, therefore H4 was not supported.

Consistent with H6a and H6c, there were significant indirect effects via active mediation and physical contact on parent-child closeness (see Figure 8). More shared television time predicted more active mediation and physical contact, which in turn predicted higher ratings of parent-child closeness. These are similar results to reports of child disclosure, except with parent-child closeness, physical contact also mediates the impact of shared television time. With the lack of a direct effect, these findings suggest that what happens during the shared time together is more meaningful than the time itself. General talk and positive affect during shared TV time were also significantly related to parent-child closeness, however, again, were not predicted by frequency of shared television time.

**Child age as a moderator of indirect and direct effects of shared TV on closeness.** As noted earlier, age did not moderate any of the paths from shared TV to the four response states considered as mediators. Accordingly, there was no age moderation of the indirect paths from shared TV time to parent-child closeness via active mediation and physical closeness. H7a-d were not supported.

Similar to child disclosure, the direct path from shared television time to parent-child closeness was significantly moderated (see the bottom portion of Table 6 and Figure 9). Simple slopes analysis revealed a negative association between shared television time and parent-child closeness ( $\beta = -.09$ ,  $p = .04$ ) for parents with young children ( $-1SD$ ). Further analysis, through the Johnson-Neyman technique, identified 5.8 years of age as the upper boundary for the region of significant negative coefficients ( $\beta$ s range from  $\beta = -.11$ ,  $p < .05$  for 3-year-olds to  $\beta = -.07$ ,  $p < .05$  for 5.8-year-olds). There were no significant positive coefficients within the age range of the sample. Once the model accounts for positive responses to shared TV time, the frequency of shared television time negatively predicts parent-child closeness for younger children (3-6 years old).

**Bonding media use as a moderator of indirect and direct effects of shared TV on closeness.** H8a-d predicted that bonding media use would moderate the relationship between shared media time and the mediators, such that higher levels of media use for bonding would strengthen the relationship between shared media time and the response states. Consistent with H8a and H8b, both active mediation and general TV talk were moderated by level of parental bonding media use (see Table 7 & Figure 10), and the index of moderated mediation indicated that both indirect paths were significantly moderated ( $.01$ ,  $p < .05$  for active mediation;  $.01$ ,  $p < .05$  for general talk). Simple slope analysis showed a small, yet significant effect of shared television time on parent-child closeness via active mediation and general talk for parents who were relatively high in bonding media use ( $+1SD$ ), but not at  $M$  or  $-1SD$  for bonding media use.

It is also worth noting that when bonding media use is in the model as moderator, the main effect of shared television time was only significant for physical contact ( $\beta = .05$ ,  $p < .05$ ). Shared TV time interacted with bonding media use to predict active mediation and general talk: there

was a significant association between shared TV and active mediation and general talk only when parents reported high levels of bonding media use (+ 1 SD).

### **Shared Video Game Play and Parent-Child Outcomes**

Figure 4 shows the conceptual model for the shared video game analyses. It is virtually the same as for shared TV time, but includes a different response state as mediator: strategic discussion during game play. With this exception, the same hypotheses were made as for shared TV time. As with the television analyses, all models controlled for child gender, parent age, gender, and education, number of children in the household, ease of separate viewing, and shared non-media time.

**Response states during shared video game time.** The model proposes that shared video game time will positively predict four response states: game discussion, strategy discussion, physical contact, and positive affect. In fact, as shown in Table 8, amount of shared gaming significantly predicted amount of game discussion, strategy discussion, and physical contact, but did not significantly predict positive affect while playing games together.

There were additional predictors of responses to shared game play. As shown in the top portion of Table 8, child age significantly predicted all response variables except strategy discussion. Parents reported less game discussion and physical contact with older children and more positive affect with older children. Strategy discussion appears to occur regardless of the child's age.

As with shared television time, child gender only affected physical contact, with parents reporting more contact with girls than boys. Mothers, compared to fathers, reported more physical contact and positive affect during game time. Parents with higher levels of education

also reported more physical contact, in addition to more discussion about gaming content. Finally, shared non-media time and ease of separate viewing were positively related to strategy discussion and positive affect only. Parents who spend more time with children in other, non-media activities, as well as those whose children can easily consume media without the parent reported higher levels of strategy discussion and positive feelings. Overall, all of the variance in strategy discussion (9%) was explained by relationship or home characteristics (i.e., shared non-media time and ease of separate viewing). Game discussion ( $R^2 = .11$ ) and physical contact ( $R^2 = .38$ ) were explained by child and parent characteristics, while positive affect ( $R^2 = .09$ ) was predicted by a combination of child, parent, relationship, and home characteristics.

### **Shared Video Game Play and Child Disclosure**

**Total, direct, and indirect paths from shared VG time to child disclosure.** As shown in Figure 4, H3 predicted a positive path from shared video game time to child disclosure. In fact, as shown in the bottom half of Table 8, the total and direct effects of shared video game time on child disclosure were significant and negative. Thus, H3 was not supported (see Figure 11).

H5a-d also predicted positive indirect effects of shared video game play on child disclosure, via the responses states. There was one significant indirect path via strategy discussion (see bottom portion of Table 8), thus only H5b was supported. Consistent with H5b, amount of shared video game time was positively associated with levels of strategy discussion, which in turn was positively associated with child disclosure.

In sum, more shared video game time led to higher levels of child disclosure only when the parent engaged in discussion about game strategy. While shared gaming time did significantly predict game discussion and physical contact, these behaviors were not significantly associated

with child disclosure. Likewise, the indirect path via positive affect was not significant. Although positive affect was related to more reports of child disclosure, the amount of shared video game time was not connected to positive affect.

**Child age as a moderator of indirect and direct effects of shared game play on disclosure.** As previously mentioned, child age negatively predicted the amount of game discussion and physical contact, positively predicted reports of positive affect, and showed no effect on strategy discussion. Looking at the paths from shared gaming to response variables, H7a-d predicted that the indirect effects of shared video game time on child disclosure would vary by child age, such that the paths to game discussion and strategy discussion would be stronger for older children, and the paths to physical contact and positive affect would be stronger for younger children. However, child age did not moderate any of the paths from shared video game time to the four response states, thus H7 was not supported.

However, the direct path was moderated by child age (see Table 8 & Figure 12). Simple slopes analyses indicated that controlling for the mediators, there was a significant negative direct effect of shared video game time on child disclosure at -1 SD of age ( $\beta = -.20, p < .001$ ) and the mean age ( $\beta = -.13, p = .0015$ ), but not at +1 SD age. Further analysis using the Johnson-Neyman technique revealed 12 years of age as the upper boundary of the significance region where shared video game time negatively predicted child disclosure ( $\beta$ s range from  $\beta = -.25, p < .001$  for 3-year-olds to  $\beta = -.18, p < .001$  for 7.2-year-olds to  $\beta = -.11, p < .05$  for 12-year-olds). The negative impact of amount of shared game time on disclosure appears to decrease with child age, as it is no longer significant with older children (13-17 years old).

**Bonding media use as moderator of indirect and direct effects of shared game play on disclosure.** H8a-d predicted that bonding media use will strengthen the paths to all four response

states. As shown in the top portion of Table 9, shared videogame play significantly interacted with bonding media use to predict three of the four response states: strategy discussion, game discussion, and positive affect (see Figure 13). Simple slopes analysis for strategy discussion suggested that bonding media use strengthened the effect of shared video game time, although the 95% confidence intervals overlapped (-1SD  $\beta=.12$ ,  $p=.023$ ; mean relational use level  $\beta=.24$ ,  $p<.001$ ; and +1SD  $\beta=.35$ ,  $p<.001$ ). Similarly, the effect of shared video game time on general game discussion was stronger for higher levels of bonding media use (-1SD  $\beta=.20$ ,  $p<.001$ ; mean bonding media use  $\beta=.30$ ,  $p<.001$ ; and +1SD  $\beta=.40$ ,  $p<.001$ ). The impact of shared game play on positive affect was not significant at -1 SD of bonding media use, but was significant at the mean level and +1 SD of bonding media use (mean  $\beta=.18$ ,  $p<.001$ ; and +1SD  $\beta=.26$ ,  $p<.001$ ); the 95% confidence intervals overlapped here as well as with game discussion.

Consistent with H8b and H8d, the indirect paths via strategy discussion (.01,  $p<.05$ ) and positive affect (.01,  $p<.05$ ) were moderated by level of bonding media use (as indicated by significant indexes of moderated mediation). The indirect path via game discussion was not significant, because game discussion did not predict child disclosure. As shown in the simple slopes analyses for the indirect paths, in the second half of Table 9, for strategy discussion, the conditional indirect effect increased in strength at higher levels of bonding media use, although the 95% confidence intervals overlap with one another. A similar pattern emerged for positive affect: the conditional indirect effect of shared video game time on child disclosure was not significant at low levels (-1SD) of bonding media use, but was significant at mean and higher levels (+1SD) of bonding media use (.02,  $p<.001$  and .04,  $p<.001$ , respectively), but with overlapping 95% confidence intervals.

In sum, the positive relationship between shared video game time and child disclosure explained by strategy discussion and positive affect were stronger when parents reported higher levels of bonding media use.

### **Shared Videogame Play and Parent-Child Closeness**

It was already established that shared videogame time predicted strategy discussion, game discussion, and physical contact while playing together. Would these mediate an effect of shared videogame play on parent-child closeness as predicted in H6 a-d?

**Total, direct, and indirect paths from shared VG time to parent-child closeness.** As shown in Figure 4, H4 predicted that shared gaming time would be positively related to parent-child closeness. As shown in the bottom of Table 8, the total and direct effects of shared video game time on parent-child closeness were negative. Thus, H4 was not supported.

H6a-d predicted positive indirect paths from shared gaming time to all four response states to parent-child closeness. Consistent with H6a and H6d, there were significant indirect effects via strategy discussion and physical contact on parent-child closeness. That is, increased amounts of shared gaming time predicted more strategy talk, which in turn predicted more parent-child closeness. Likewise, time spent playing video games together predicted more physical contact, which in turn predicted higher levels of reported parent-child closeness (see Figure 14).

In sum, there was a negative direct effect of shared gaming time on parent-child closeness when positive response states were partialled out. However, shared gaming time had positive effects on closeness via the indirect paths of increasing amount of discussion about strategy or physical contact.

**Child age as a moderator of indirect and direct effects of shared game play on closeness.**

H7 predicted that the indirect effects of shared gaming time on parent-child closeness via game discussion and strategy discussion would be stronger for older children, and the paths via physical contact and positive affect would be stronger for younger children. There was very limited support for this hypothesis. As shown in the top of Table 8, there were no significant interactions between shared video game time and child age predicting the four response states. However, the index of moderated mediation indicated that the indirect path from shared game play  $\rightarrow$  strategy discussion  $\rightarrow$  closeness (.01,  $p < .05$ ) was significantly moderated by age. Simple slopes analysis of the indirect path (see bottom of Table 8) suggested that the positive path via strategy discussion was stronger for older children, although the 95% confidence intervals overlapped.

Additionally, the direct path was moderated by child age (see Figure 15). Simple slope analyses revealed a significant negative relationship between shared video game time and parent-child closeness at -1 SD and mean child age ( $\beta = -.27$ ,  $p < .001$  &  $\beta = -.15$ ,  $p < .001$ , respectively). As with child disclosure, further probing via Johnson-Neyman technique revealed 12 years of age as the upper boundary of the significance region where shared video game time has a negative relationship with parent-child closeness ( $\beta$ s range from  $\beta = -.36$ ,  $p < .001$  for 3-year-olds to  $\beta = -.24$ ,  $p < .001$  for 7.2-year-olds to  $\beta = -.11$ ,  $p < .05$  for 12-year-olds).

In sum, the results suggest that there was a positive indirect effect of shared videogaming on parent-child closeness via strategy discussion, but not via the other response states. There was some evidence that this one significant indirect path was slightly stronger for older children. There was a negative direct effect of shared gaming on parent-child closeness, once the positive

response states were partialled out, and this was stronger for younger children and non-significant for adolescents.

**Bonding media use as a moderator of indirect and direct effects of shared game play on closeness.** H8a-d predicted that bonding media use would strengthen the effects of shared gaming time on all four response states. As noted earlier, shared gaming time positively interacted with bonding media use when predicting game discussion, strategy discussion, and positive affect. Consistent with H8b and H8d, the indirect paths via strategy discussion (.01,  $p < .05$ ) and positive affect (.02,  $p < .05$ ) were moderated by level of bonding media use (see Conditional Indirect Effects in Table 9 & Figure 16). For strategy discussion, the conditional indirect effect appears to strengthen as parents report more frequently using media to bond with family, although the 95% confidence intervals overlapped. For positive affect, the conditional indirect effect of shared video game time on parent-child closeness was significant for parents at mean and higher levels (+1SD) of bonding media use (.04,  $p < .001$  and .05,  $p < .001$ , respectively).

In sum, in line with the disclosure findings, the positive indirect effects of shared videogame play via strategy discussion and positive affect were moderated by amount of bonding media use, with higher levels showing stronger effects. Once again, the intentionality of the parent may serve to bolster the positive experiences from shared gaming time.

### **Child Gender as a Possible Moderator of Effects of Shared Media Use on Outcomes**

RQ1 asked whether child gender would moderate the direct or indirect relationships from shared TV time or shared game play to disclosure or closeness. For the television models predicting disclosure or closeness, child gender did not moderate any paths. Thus, the relationships between shared television time and family outcomes were consistent for daughters

and sons. For the video game model, one path was significantly moderated by child gender (shared video game time → physical contact during game time). There was a stronger relationship between shared gaming time and physical contact for daughters than sons ( $\beta=.31$ ,  $p<.001$ ,  $\beta=.13$ ,  $p=.004$ , respectively). There were no other gender differences for shared game play.

### **Post-Hoc Mediation Analysis: Examining Bonding Media Use as a Predictor of Response States**

Given that bonding media use seems to play such a powerful role in shaping shared media use, (indeed shared television time is no longer a significant predictor of general talk and active mediation once bonding media use is entered into the model), and given that bonding media use is also a frequency measure, post-hoc analyses were conducted with bonding media use as the primary predictor, rather than shared TV or videogame time (see Tables 10 & 11).

For child disclosure, the total and direct effects of bonding media use on child disclosure were significantly positive for both the model with shared TV mediators and shared video game mediators. There were also significant indirect effects of bonding media use on disclosure via general talk, active mediation, strategy discussion, and positive affect (both during shared television time and shared video game time). Bonding media use positively predicted these response states, which in turn positively predicted child disclosure. In contrast, bonding media use positively predicted physical contact during shared gaming time, which in turn negatively predicted child disclosure.

For parent-child closeness, the total effect was significantly positive for both models, but the direct effect was only significant with the shared video game model. The indirect effects,

however, showed positive impacts of bonding media use on parent-child closeness via all of the shared television response variables and two of the shared video game response variables. Thus, parents who use media to bond with their child reported higher levels of parent-child closeness if they also reported engaging in discussion (active mediation and general talk) and physical contact during the shared TV time and felt positive during experience. Similar results were found if they discussed strategy and felt positive during shared game time (see Table 11 for video game results).

### **Conclusions**

In summary, child age was negatively related to shared television time and there were curvilinear patterns for shared video game time. However, parents with younger children reported more physical contact during shared media time, more active mediation during shared television time and more game discussion during shared video game time. Parents with older children reported more positive affect during shared media time and more general talk during shared television time. Although child age predicted the likelihood of parents' frequency of response states, the relationship between shared media time and the responses states did not vary by child age.

The total effect of shared television time on child disclosure and parent-child closeness was nonsignificant, while the total effect of shared video game time on the family outcomes was negative. The indirect effects for child disclosure were only significant through active mediation for shared television time and strategy discussion for shared video game time. Similarly, the indirect effects for parent-child closeness were only significant via active mediation and physical contact for shared TV time and strategy discussion and physical contact for shared video game time.

Bonding media use positively predicted shared media time, and it moderated the indirect effects of shared television time on child disclosure and parent-child closeness. That is, shared media time only predicted active mediation and general talk at higher levels of relational media, and these in turn predicted disclosure and closeness. Similar moderation was found for effects of shared video game time. Shared video game time only predicted strategy discussion, game discussion, and positive affect at higher levels of media use for bonding, and these in turn predicted child disclosure and (with the exception of game discussion) parent-child closeness.

## CHAPTER 2

### The Shared Time Experience

The key question for this research is: what is happening during the family media time that may strengthen the parent-child relationship? The analyses thus far show that shared time can prompt active mediation, general talk, positive affect, and physical touch all of which can positively affect the parent-child relationship when parents use media for relational purposes. However, analysis of the qualitative accounts allows exploration of these behaviors in parents' own words, and can shed additional light on possible mechanisms by which shared media time might be positive for families. In line with the family systems framework, attending to the processes and functions of this family leisure activity can help us understand how children and family members are nurtured and socialized within the family context. Thus, as an exploratory analysis to gain more insight into the shared media experience, I examined open-ended responses given by parents of their most memorable shared moments. An examination of the most memorable moments helps to highlight aspects of the shared time to which parents have attached special meaning. Asking about the most memorable experience requests an internal evaluation of multiple experiences so that they can make a personal judgement about the *most* memorable. These responses provide a glimpse into what parents deem important about the shared media time.

### Method

At the end of the questionnaire, participants were asked, "please think of a memorable time when you and [child's initial] watched television or a movie or played a video game together. Describe what happened and [the child's] reactions to this time together." Because the primary goal was to gather further insight from parental voices, a grounded theory approach was

first used to generate subcategories. Using processes described by Saldaña (2009), there were two levels of category generation. The first level used the parent responses themselves to create subcategories, then the second level used the subcategories to create larger themes.

The first level of category generation was structural. Structural coding means the researcher applies a content-based or topical phrase to data (i.e., childhood favorite). Emotion coding was also performed to capture the array of emotions expressed by children and parents during shared media time. All responses were also coded for medium type to evaluate possible patterns by medium, especially because shared television time and shared gaming time were shown to have different mediating factors. After the first level of category generation, there were 20 thematic, 11 emotion, and 7 medium subcategories.

After creating subcategories from the responses themselves, the second level of category generation required reorganizing and reanalyzing the subcategories in order to create a coherent overview of the data (Saldaña, 2009). Pattern coding was used for the second level, looking for emergent themes across several subcategories and resulted in eight main themes. Pattern coding is very similar to structural coding at the first level and requires the researcher to create connections across subcategories in order to identify larger patterns. To gauge reliability for the coding of the themes, 20% of the responses (N=286) were coded by a trained coder (Krippendorff alphas ranged from .75-.92). Finally, in order to distinguish between themes that mirrored the mediators from the quantitative analysis and those that might illuminate new mediators, each subcategory that was most in line with active mediation, general talk, physical contact, and positive affect was separated from the other themes. Thus, I will first describe the ways in which parents voluntarily mentioned the modeled mediators, followed by descriptions of

the remaining six new themes. Just as the shared experience can include multiple mechanisms, accounts from parents can include more than one code.

## Results

Overall, parents most frequently described a time when they shared a movie with their child (41%), and about a quarter of parents (23%) mentioned a shared television or a shared video game experience (Table 12). In the previous analyses, I examined the possible mediating role of active mediation, general talk, physical contact and positive affect in the relationship between shared media time and positive family outcomes. These concepts were also reflected in parents' spontaneous descriptions of memorable shared media moments. Their words bring to life the ways in which this shared media time can strengthen the parent-child relationship.

### Active Mediation

Collier et al. (2016) in their meta-analysis of parental mediation effects defined active mediation as “a means of exploring and clarifying media content between parents and their children, with an aim of helping children to become critical consumers of the media” (p. 800). That is, the active mediation process is usually conceptualized as parents talking with children during exposure about what they see on the screen, pointing out good or bad things, helping children understand what they see (Valkenburg, et al., 1999). Therefore, based on what emerged from parent voices, I characterized it as parents answering questions or children asking questions about the content being shared. Only 3% of the responses described this behavior, however, it *was* present. Parents most often described answering questions sparked by the child in an effort to explain the content. For example,

We watched the original *Star Wars* movies together, and it was his first experience with non-cartoon movies. He loved it and was so excited, and he was also full of questions. I

had to explain a lot of things to him and point out why characters did what they did. I also skipped some parts that I thought would be too difficult for him to process. It was really fun to watch the movies together. – *Mother of 5-year-old boy*

She likes something that I consider slapstick. She thinks they are hilarious and will ask questions about why they appear to be harming one another. Mostly I explain how false the characters are. – *Father of 6-year-old girl*

My daughter and I watched *The Count of Monte Cristo* and she really enjoyed the movie. We sat near each other and ate popcorn and my daughter asked a lot of questions when there were parts of the movie she did not understand. My daughter really enjoyed spending time with me and we had a great bonding moment. – *Father of 13-year-old girl*

### **General talk**

While similar to active mediation, general talk was characterized by talking during exposure that was not necessarily answering questions or teaching. General talk as described in these parent responses, involved discussions about the content or characters, in addition to unspecified talking, often sharing opinions or ideas. Examples:

We enjoy watching shows together because we enjoy each other's comments on what's going on. It's fun to see what silly commentary she makes and she likes it when I say witty things about the characters on our favorite shows. We really enjoy this time together and she often requests that I make time to watch TV with her. – *Mother of 11-year-old girl*

I let him pick the movie and he was excited for some one on one time with me as well as being able to pick the movie. We made snack and sat on the couch watching the movie he picked and occasionally commenting and talking and joking during funny scenes. He was very happy that I seemed interested in the movie and asking him what he thought about it. He knows he picked a good film. – *Mother of 7-year-old boy*

He was happy that he had more time to talk and be listened to when his little brother was not around. – *Mother of 5-year-old boy*

The first time we played *Wildstar* together and created our characters, we laughed and talked about all the various options available for character customization. We helped each other choose what and how to customize and named the characters together. My son seemed relaxed, excited, and happy to be spending time together. – *Mother of 15-year-old boy*

Hours spent building cities together. We discuss strategies almost daily. – *Father of 10-year-old boy*

### **Physical Contact**

As already displayed in some of the earlier responses, physical affection, via cuddling or hugging, was described by parents as well (11%). Snuggling and cuddling together to share in a television show, movie, or video game often expressed warm, loving moments between family members. While parents were more likely to mention cuddling with younger children [ $\chi^2 = 32.05$  (3),  $p < .001$ ], there were also times when parents recollected snuggling with older children.

For my birthday, my kids and husband bought me a DVD of the *Sound of Music*. The kids watched it with me because it is one of my favorite movies. It is not a movie they would normally like. Because it was a treat for me they watched it and cuddled with me. Surprising to them was that they loved the movie too. It was a fun night. – *Mother of 10-year-old boy*

V anticipates watching our scheduled shows together. We do not watch much TV, so I think it seems more special to her to drill in on a show like *The Voice*. We will DVR it and watch it together. This is memorable for us both. We often lay on my bed and cuddle. It helps her unwind and forget about the stress at school. She actually needs as much time with me as possible, and when we hang out together she's much happier. – *Mother of 11-year-old girl*

We have a family movie night every Friday night. All of the children enjoy spending this time with us, and they take turns cuddling with myself, and my wife. – *Father of 12-year-old boy*

We had a family movie night while eating dinner in the living room. When K and I both finished eating she came over to me on the couch and we snuggled the rest of the movie. K was so happy for this special time with me. She kept telling me she loved me. – *Mother of 3-year-old girl*

While cuddling was also described during shared video game play, often hugging was the form of physical affection in this context.

We completed *Call of Duty* together. K was very excited, even gave me a big hug for helping. – *Father of 16-year-old girl*

Earlier today we played *Mario Brothers* together. He is always excited to play with me! Anytime he wins or does a good job, I cheer for him and we hug. Today he beat a level he's been trying to beat for a while. When he beat it, he jumped up in the air out of my lap with excitement. He said "I did it Mama! I won!" I clapped and praised him, and then he gave me a huge hug. He was so proud of himself! – *Mother of 3-year-old boy*

### **Positive Affect**

In general, parents described a range of positive emotions including happiness, excitement, pride, enjoyment, and laughter. All of these emotions were combined to capture positive affect during shared media time. A large majority of responses (72%) expressed positive affect during their memorable moments, with some accounts expressing more than one emotion. Parents described emotions elicited both from the content (as in the first 2 quotes below), as well as from the experience together (as in the third quote below).

When we watched a particular episode of *Bob's Burgers* we laughed so much at a scene that we both cried. I feel that moments like these bring us even closer together. – *Mother of 13-year-old boy*

It was funny because we were watching Lego movie, and Batman was trying to get into the infinitieth floor. Batman was throwing a bunch of bat shaped throwing stars at a button and when he finally got it, my son jumped up with joy! – *Mother of 4-year-old boy*

She seems to really enjoy when her mother and I play a dancing game with her. It seems to make her genuinely laugh. – *Father of 11-year-old girl*

The moments when a parent discussed pride focused both on the child's proud feeling, as well as the parent's pride in response to something the child did, said, or a way he/she handled a difficult situation.

On a particular episode of *Teen Titans Go*, the entire episode was an elaborate parody of another cartoon that C. watches, *Scooby Doo*. He was so happy and proud when he figured it out, and the show took on more meaning because he'd figured out the "show within a show" effect in the story. – *Father of 12-year-old boy*

We were playing *Minecraft* on the PC which is her favorite game and somebody joined our server and destroyed the house we had been building. I though [*sic*] she would get really upset since we had spent so much time on it but she just said "well, that guy was not very nice. Guess we have to start again." which made me proud that she did not just give up. – *Father of 6-year-old girl*

As shown from all of the examples above, parents' retelling of memorable moments they shared with their child and media exemplified the quantitatively measured response variables of the previous analyses. We heard descriptions of parents trying to help their child understand the content and well as generally discuss characters and opinions about content. Many instances described warm, affectionate physical contact among parent and child along with joy, laughter, and moments of pride.

These voices from family contexts not only reinforce prior literature, but they can also help elucidate additional characteristics of shared media time that may strengthen parent-child relationships. The responses revealed six additional themes: extension of the content, sharing favorites, teaching/learning, competition, appointment exposure, and collaboration. Below I will define each category and provide illustrative responses from parents.

### **Extension of Content/Experience**

In this category parents were describing times in which the mediated content or shared media experience was extended beyond the screen in some way by acting out the content, singing along with the content, considering how various topics might work in the real world, or referring back to the time of exposure later. While much of this is done through talk and has elements of active mediation or general talk, it appears specific and different enough to merit a separate theme and further exploration. These extensions can take various forms, for example, it could be parents talking about how something on the screen could happen in the real world as with this mother-son dyad's conversation about alternate dimensions:

We were watching the movie *Coherent*, and as we watched it, we kept looking at each other going "woah" because the content is very mind blowing. Sometimes we would stop the movie and talk about if what just happened was possible or some idea it made us think of. Then, afterward, we couldn't stop talking about the movie and how it made us think about the existence of alternate dimensions and time and space, so we had lots of good conversations. L's reaction to this was that he was very happy and interested, and he wanted to watch it again. – *Mother of 15-year-old boy*

Conversations like these about how things might happen in the world provide opportunities for shared learning and understanding. Similarly, when parents and children share content from one medium to the next, they draw on their knowledge of the first to reflect on the second, thereby reinforcing the material. This mother-daughter dyad used the connection between a book and a film and explored their feelings about artistic decisions made by the producers.

When we watched the first *Shadowhunters*, it was very exciting for both of us because we read the books together and really enjoyed them. Watching the book come to life was very exciting and we continuously comment on similarities and differences from book to screen and also how we feel about the casting decisions. She was very happy we shared this experience together, as was I. – *Mother of 15-year-old girl*

Another way families extended the content was by repeating experiences from shared media later and incorporating them into family stories.

We enjoy watching shows or movies that make us laugh. We have 7 seasons of *Family Ties*. We enjoy laughing at the funny parts even though we've seen them many times. ... We enjoy quoting from our favorite show and movies. At anytime of the day, if something reminds us of a quote we will recite the line, sometimes with a small change to better fit the situation. – *Father of 16-year-old girl*

In this case, lines from the show transformed into family inside jokes. It also happened that the experience itself of watching the content, rather than the content per se, became the repeated family story, as with this mother-daughter pair:

We watched the *Marble Hornets* series on DVD. We turned off all the lights because it is a scary series. I tried so hard to stay calm, but I startle very easily, so every time the sound

got loud or something scary happened, I would jump or scream, and that, in turn, made M jump. She would probably not have been startled at all while watching that series if it hadn't been for me being startled so much. It was quite funny, and we both laughed and laughed about it. She brings it up from time to time, and we still both get a good laugh when thinking about it. – *Mother of 13-year-old girl*

In the moment of exposure, extensions also came through in descriptions of children acting out parts of the content or singing along with the characters. This reinforcement of the material was more often described by parents of young children than older children.

Since M is only 3 she tends to get really excited watching certain things. With *Yo Gabba Gabba* we tend to sing along to the songs together and dance along with the characters on the screen. – *Mother of 3-year-old girl*

When we watch shows about dinosaurs he then wants to run around and pretend we are dinosaurs together. All the kids and myself play this game while Mommy looks on, amused. P gets very excited about being chased around and about pretending. – *Father of 3-year-old boy*

Collectively in these examples parents described moments where there is a continuation or reinforcement of the content between mediums and beyond the screen, or subsequent reminders of the shared experience. These connections may serve to foster a more positive relationship between parent and child because they have the potential to create shared understanding, reaffirm common values, and create opportunities for inside jokes/references that reinforce the interpersonal bond.

### **Sharing Favorites**

Parents described a time when they shared their own favorite show, movie, or video game with their child. For example, this mother introduced her children to her favorite movie and therefore created a special family memory:

We enjoyed watching one of my favorite movies -- *E.T.* -- recently and I had both my boys cuddled up next to me for the whole thing. The magic and excitement of sharing my favorite film, was so special. My youngest still needed reassurance that it was going to be okay at the end; he wasn't willing to watch otherwise. – *Mother of 5-year-old boy*

The act of sharing one's favorite with someone else invites a common interest to come from the mediated experience, which could strengthen the social bond. Parents expressed positive memories of sharing their child's favorite content as well.

I remember the first time we watched A's favorite movie together. The movie was *Frozen*. We laughed and "A" expressed her happiness about the movie. She was so pleased that I was watching the movie with her. – *Parent of a girl*

When we were partners on *Call of Duty* and did really well. He was so happy because this is his favorite game. – *Mother of 8-year-old boy*

Parents also expressed their positive feelings over introducing *their childhood* favorite to their children and enjoying the child's reaction.

Sharing a favorite movie from my childhood - *Star Wars*, for example - with my son can be a bonding experience. He gains a sense of what I enjoy and why, and something of what my younger years were like. – *Father of 15-year-old boy*

When he first seen [sic] *Pokemon*, it was breathtaking. We were on Netflix and I remember when I was little how much I enjoyed it. I put it on and they instantly became infatuated

with what was on! I felt really connected that we can share a memory with one another, and it continues into this day! – *Father of 3-year-old boy*

I remember the first time we played *Mortal Kombat* together and she was surprised I knew the characters and the moves. I told her it was a game I often played in my teen years. so we bonded over that game. – *Mother of 17-year-old girl*

Sharing a family member's favorite can create happy memories for everyone and these descriptions exemplify how parents share parts of themselves as they share a childhood favorite with their own child, which could strengthen the parent-child relationship. In sum, parents described moments of bonding with their child by sharing a favorite, whether it be a current or childhood favorite, or sharing in their child's favorite.

### **Teaching/Learning**

This category includes responses that noted a situation where the child was teaching the parent or when someone learned something new (e.g., video game skill, letters, counting). While some instances were similar to extensions of the content, the moments here captured the time when parents discussed learning specifically, which happened from a person, the content, or the experience. In these instances, the parent was conscious of the learning that occurred and considered it notable, or a part of the memorable moment.

Recently he asked me to play MLB online on his PlayStation. He did most of the playing, however, we had a lot of fun interacting. He has learned a lot about the baseball players through the game itself. K and I enjoyed this quality time together. Lots of memories about Little League Baseball with him. – *Mother of 16-year-old boy*

When I first got her tablet she started finding all of the pre-downloaded games and apps on her own. She came to me with a puzzle game that requires her to place oddly shaped colored pieces into a blank template and when all of the pieces are placed correctly the picture forms and the word of the item is spoken. “I” instantly was very good at this puzzle game and I was simply amazed at how she found it herself and taught herself how to play and how good she was at matching the shapes. – *Mother of 3-year-old girl*

D was teaching me how to play a new game. This was fun learning from D. D felt very good about this and his face looked radiant. – *Father of 16-year-old boy*

A loves playing *Minecraft*. My husband and I each have our own world that he helped build with us. He loves teaching us and playing it with us. – *Mother of 8-year-old boy*

A wanted to watch a documentary on something that she is very interest in right now. We watched it together and she was able to fill me in on the background as well as additional insight into some of the things that we saw together. It was a special time because she was teaching me about something that she was interested in. – *Mother of 16-year-old girl*

Moments like these of role reversal could be especially important as adolescents renegotiate their relationship with their parents and develop their own autonomy. They could provide situations in which role reversal is less threatening to the parent, especially if the parent is not a digital native.

### **Competition**

Almost always within the context of shared video game play, parents described memorable times when their child beat them, they beat their child, or someone won. The overall sense of competition and competitiveness was often coupled with celebration or excitement.

We were playing *FIFA 16*. He actually beat me by several goals. He's pretty good. He was rubbing it in my [sic] the whole time afterwards. It was all in good fun. – *Father of 9-year-old boy*

Played *Mario Kart*, after many attempts to she finally beat me and she danced around the room, she was ecstatic. – *Mother of 12-year-old girl*

When we play the video game *Mortal Kombat* it is very intense because although I am the MOM I most always win. :) I do, however, sometimes let him win. We are very competitive and I think that is okay. – *Mother 12-year-old boy*

We recently bought and played *Rocket League*, we both had never played the game before but like always, her reflexes and ability to grasp a games controls are far faster and better than my own, we played a game online and amongst all of us at home she was the first to score a goal, we high five'd and she did a victory dance and made funny face at us, in good fun! – *Father of 9-year-old girl*

Although the majority of responses in this category described shared gaming experience, two focused on shared television experiences and *Wheel of Fortune* specifically:

When watching *Wheel of Fortune* or *Jeopardy* we try to beat the players and each other so much fun when we do win and now that A is getting older and A is winning more often there is a lot of pride from both of us. The family has a lot of laughter and smiles. – *Mother of 12-year-old-girl*

The most memorable show is *Wheel of Fortune*. My daughter used to find the words and gets so excited. We usually compete with each other as to who finds the words first. – *Mother of 8-year-old girl*

In sum, the memorable times describing competition showed times when the children and parent are competing with one another during video game play. These memorable competitive moments were ones where they enjoyed the interactions and were frequently coupled with celebrations or trash talk. These memories can serve to strengthen parent-child relationships as they get integrated into family narratives or possibly serve as scripts for later competitive situations.

### **Appointment Exposure**

These descriptions referred to the time spent in the shared activity either in a routine fashion, like watching weekly shows together, or scheduled time to share media like family movie night or holiday traditions. With the routine shared media experiences, parents reflected on the fact that they get this time with their child regularly and enjoy the time together:

*We watch *Walking Dead* every Sunday together. We both like the show and our reactions are very extreme. This is a wonderful way to bond with my son. – Mother of 15-year-old boy*

*We were watching a movie on my bed. We do this every Friday night. She thoroughly enjoys these nights. It's a relaxing time and a great bonding time. Wonderful memories!! – Mother of 4-year-old girl*

*We make an effort to play Wii every weekend. It is the only way we truly stay in contact with each other besides at dinner. If it weren't for this time we'd almost be strangers. – Father of 17-year-old boy*

*We watch *Modern Family* together every week as a family, and it is one of the few things that all five of us do all together. Willa loves this time, and feels very strongly that we all keep the appointment. – Mother of 13-year-old girl*

Every year we watch *The Wizard of Oz*. We have done this every year since A was 2, and she loves this tradition. – *Mother of 7-year-old girl*

Every Christmas Eve we watch "A *Christmas Story*" together. We have since she was little and it is calming, loving, festive and something we look forward to every year. – *Mother of 15-year-old girl*

Both the weekly routine and annual traditions are described as anticipated events that bond family members together and create joy. Having the shared media experience as a way to bring family members together is valued by these families as they routinely or intentionally plan to spend time together this way rather than accidentally find themselves in the same place.

### **Collaboration**

Finally, the last category captures moments when parents described working together with their child on a game or to figure something out. The vast majority of instances when the parents discussed working together was in the context of playing a video game together.

I was playing *Halo* with my son and we beat the whole single player game together in co-op mode. I could tell how much fun we were having by how into it he was. We played the entire day until we finished the game. It was a great bonding moment. – *Father of 6-year-old boy*

We were playing *Minecraft* and worked together to build a safehouse with food and supplies, and he was impressed that mom knew how to play video games so well. We both laughed when I told him I had been playing video games longer than he'd been alive! – *Mother of 5-year-old boy*

Yesterday we played *Minecraft*. We are building a city together and we like to narrate what is going on in places of our city. We both get really into it, it's pretty nerdy but we have fun. – *Mother of 8-year-old girl*

### **Discussion**

It is clear from parental accounts of their memorable shared media moments that television and movie watching are not strictly passive activities where parents and children cohabit the same space and collectively stare at the screen. Rather, these short descriptions provided rich expressions of times when parents and children engaged with the content on the screen and one another, where they considered the implications of the content, where they shared the same response to content, where they cuddled together, where one person learned a new skill or acted out what they saw on the screen or where they introduced another to their favorite content. Shared video game time was described full of moments of collaboration or competition and celebration. They shared strategies with one another and built virtual worlds together. Whether the time together was intentionally set (e.g., family movie night) or happened spontaneously, it was described as ripe with moments of bonding between parents and children.

The current analysis of parents' descriptions of shared media time complements the previous analysis, as evidence of active mediation, general talk, physical contact, and positive affect was identified from categories that came directly from parent voices. Additionally, and importantly, the descriptions provide insight into other areas for future research on possible mediators or moderators of the positive outcomes from shared media time. Six new themes emerged from this research: extension of the media content or experience, sharing a family member's favorite, child teaching parent or learning,

competition, intentional shared consumption, and working together. As many of these can be connected with one another, they suggest combinations of ways parents and children may use shared media time to strengthen social bonds

As Lull (1980b) noted, social uses of television have communicative value for the family. In his typologies of social uses, he identified four broad categories: communication facilitation, affiliation/avoidance, social learning, and competence/dominance. Through the themes drawn from parents' memorable moments, we find support for communication facilitation, affiliation and social learning. In Lull's typology, communication facilitation referred to the ways in which television content and the viewing experience can provide stimuli for talk between viewers. This talk, Lull argued, has the possibility of clarifying attitudes and values among some family members. In the current study, conversations that made connections between the topics presented on screen and families' current lives are an example of media's communication facilitation. As parents discuss racism in American society after watching *To Kill a Mockingbird*, or talk about how emotions are expressed while watching *Inside Out*, the discussants used the mediated content as a springboard for conversations that probe important, complex topics. It is unclear from these brief descriptions what type of impact these kinds of discussions have on individual knowledge or understanding, however, it is clear that shared media use can facilitate conversations that have the potential for bringing families closer.

Lull's category of affiliation/avoidance described the use of television to help family members avoid opportunities for interpersonal contact or to create these opportunities. In the current study, affiliative contact appeared most often in descriptions of physical affection displayed during the shared time via cuddling and hugging. Likewise,

the positive affect expressed during much of the shared media experiences has the potential of creating warm environments to support affiliative connections. Since parents were reflecting on memorable shared moments, the accounts focused on affiliation rather than avoidance.

Lull's category of social learning refers to the learning by viewers not only from models on the screen, but also parents' reinforcing values through the encouragement of particular content or using themes from content to educate children on the parent's world view. An example of this in the responses from parents is the sharing of favorites. Specifically, when parents share their favorites with their children, they are subtly communicating their own values to their children. In effect, they are presenting certain material as worthy of attention and more valuable because mom or dad really like it. Likewise, when a parent shares in a child's favorite, he or she can reinforce the value of that material for the child, especially if it is consumed in a warm and positive environment.

Not only does the use of media in the family have communicative value, but when consistent, shared media time has the potential to increase family cohesion (Zabriskie & McCormick, 2001). Fiese, Tomcho, Douglas, Josephs, Poltrock, and Baker (2002) reviewed research on family routines, rituals, and traditions published since 1950 and argued for a clearer delineation between routines and rituals as researchers examine the importance of these concepts in family life. They categorized routines and rituals based on their distinction on three characteristics: communication, commitment, and continuity. Rituals include symbolic communication, enduring and affective commitment, and continuity across generations, as compared to routines, which deal with instrumental communication, perfunctory and momentary commitment, and simple repetition.

While regular shared media time may be more of a routine activity, many of the memorable times described by parents expressed its ritualistic possibilities as well. Sharing favorites is exemplary of rituals' symbolic communication as participation can provide a defined group identity around a favorite show, film series, or gaming genre. As family members continue to share favorites with one another, they can create a shared identity around the content (e.g., we like cooking shows) and the experience. Affective commitment refers to the ritual providing a sense of belonging and an "emotional residue" that members can replay later. This commitment can be seen through extension of the content in which parents described times when family members referred back to a positive shared media experience (e.g., remember when we both got scared), or created inside jokes from the experience. These subsequent references may help establish a sense of familial belonging.

Finally, Fiese et al. (2002) posited that rituals "provide continuity in meaning across generations with the anticipation for repeat performance and an investment that 'this is how our family will continue to be'" (p. 382). When a parent introduces a childhood favorite to their child and gets excited about the child's enjoyment, this is the continuity of not only the mutual enjoyment of the content, but the underlying assumption that this mediated content is important to the parent and possibly to the family. In addition, when the child insists on keeping the tradition of watching a movie at holiday times, this is also in line with the continuity dimension of rituals. Examining the ritualistic function of shared media time can help document its positive effects on familial relationships and the family system as a whole. Fiese et al. (2002) argued that the symbolic nature of rituals is what leads to

greater sense of belonging and closeness among group members, although they call for more empirical studies to differentiate the two concepts in usage.

In sum, looking at parental descriptions of memorable shared time experiences provided useful support for previous mediators and new directions to explore. Through the parent's voice we heard feelings of bonding between parent and child. Examining such moments within the context of shifting family-time patterns can help understand ways for shared media time to bolster the family system.

## CHAPTER 3

### General Discussion

We watched *The Peanuts Movie* in my bed together and it was one of the few times no other family members were present, especially J's younger brother. J and I cuddled in bed and had a great time laughing and being silly together. We chatted about J's school day and J really enjoyed being the sole focus of my attention. – *Mother of 4-year-old boy*

While playing *Elder Scrolls Online*, A and I discussed some of the characters' actions in relation to their differing perspectives during a conflict. A picked up on this easily and could relate to conflicts in her own life. – *Father of 11-year-old girl*

J really enjoys watching the Harry Potter series. The first three or four movies were released before she was born. We were talking one day and I said something about Hogwarts. She asked what I was talking about and I said it's from Harry Potter. She says, "Who's that?". I knew it was something she would enjoy and I was a little shocked that she had never seen any of the movies. So I played the first movie for her and she absolutely loved it! Then, of course we had to watch the entire series together. And she loved the characters, the story line, and the magic. She was so excited when we'd finish one movie and couldn't wait to watch the next one. We talked about all kinds of things, from what kinds of powers we wish we had to would we do the same thing the characters did. It was surprisingly a great way to bond with her, who knew Harry Potter could bring parents closer to their children. – *Mother of 11-year old girl*

As noted in the above descriptions of memorable shared media experiences, quality time can be created and enjoyed between parents and children while participating in these common leisure activities. The current research situated shared media time within the larger family system as an important site for examining family processes. That is, shared family media use can be a functional family process that possibly strengthens the system or allows for adjustments to be made when shifts occur in other parts of the system. For instance, the current project found a negative association between child age and shared non-media time, reflecting the overall shifts in time spent in shared activities with older children as compared to younger children. In addition, parents reported less disclosure from their older children and felt less close to them as well. Given these shifting patterns within the parent-child subsystem, one of the central questions for this research focused on age differences in shared media time and the potential for shared media time to help parents to adjust the system to strengthen the parent-child relationships.

Prior research suggests that watching television and playing video games together can be important social bonding activities for family members (Padilla-Walker et al., 2012, Coyne et al., 2014b). It is clear from media use studies that individual family members spend a lot of time with various types of media daily. As noted in the introduction, amount of time spent with media increases substantially throughout childhood, from 2 hours a day during the preschool years, to 9 hours in adolescence, and parents themselves spend about 9 hours a day with media (Rideout, 2013; Rideout, Foehr, & Roberts, 2010; Lauricella, Cingel, Beaudoin-Ryan, Robb, Saphir, & Wartella, 2016). Therefore, it is not surprising that parents in the current study reported spending about 11 hours/week watching television with their child and about 4 hours/week playing video games together.

Within the context of age-related decreases in family time, what role does shared media time play? The findings suggest a shift based on child age in shared media time as well. It was hypothesized (H1) that child age would be positively related to shared media time. H1 was only very partially supported. Shared television viewing did not increase with age (rather it decreased). Shared video game play showed a curvilinear pattern, with an increase in the early years (between 3 and 4 years old), a peak at age 10 and a steady lowering thereafter. Interestingly, 10 years of age was the point at which media usage reports noted an increase in children's media use and device ownership (Rideout et al., 2010, Rideout, 2015). While this might suggest children are drawn away from shared video game time with their parent around 10 years old, the number of devices in the current study was positively predictive of shared gaming time; therefore, further investigation is needed to clarify the role of child age and number of devices in shared gaming activities.

With regard to the discrepancies in the literature surrounding child age and shared television time, my findings are in line with research that shows less shared family time and media time with older (relative to younger) children (Crosnoe & Trinitapoli, 2008; Larson, et al., 1996; Lam, McHale, & Crouter, 2012). Although the current measurement was dyadic time and not family time, shared television time was more infrequent with older children.

Before discussing the ways in which shared media time operates within the context of changing age patterns, it is helpful to review the current findings about the content parents reported sharing most frequently or most recently with their child. On the whole, the content was very diverse in nature. Perhaps reflecting the 21<sup>st</sup> century digital landscape, I did not find a short list of core shows, movies, or games being enjoyed by all families. Rather, families named hundreds of different titles. In fact, 730 different TV shows and 434 different video games were

named in the top three most frequently shared titles, and 1032 different movies were named in the top three most recently shared movies. Although the industry ratings in general appear to help guide parents to appropriate material for their children, they were not used as strict requirements for exposure.

Frequently parents shared content that was deemed inappropriate for their child's age based on industry ratings. It is possible that as a parenting strategy, parents would rather be present and watch/play inappropriate content with their child, rather than risk the child watching alone or with peers, or rather than restricting the content all together. Research shows that restricting adolescents' exposure is associated with more viewing with friends (Nathanson, 2002), which is mediated by adolescent reactance (White, Rasmussen, & King, 2015). Thus, parents might attempt to avoid such reactance by sharing the media with their child. Alternatively, this exposure to inappropriate content could also be a version of a third-person perception, where parents believe the effects of TV violence to be stronger for other children than their own (Hoffner & Buchanan, 2002, Nathanson, Eveland, Park, & Paul, 2002).

The current study sought to extend the research on shared family media time (i.e., watching television together or playing video games together) by investigating the mechanisms by which it can be positive for the parent-child relationship. To further our understanding of what happens between parents and children during shared media time, the current project drew from parental mediation literature to explore the discussions that might occur between parents and children. While there is a plethora of literature about active mediation behaviors, there is little quantitative data about the more general talk that occurs during shared media time. Thus, the current project tested active mediation and general talk as separate mechanisms in the model.

Active mediation and general talk, while related, were distinct concepts that helped explain how shared media time can increase parents' reports of closeness with and disclosure from their child. In fact, the factor analysis showed two separate factors, and the two variables showed distinct patterns of predictors. Most notably, active mediation was less likely to occur for older children relative to younger children, but general talk was more likely to occur for older children relative to younger children. Additionally, active mediation was predicted by relationship characteristics (i.e., how much time the parent and child spend together in non-media activities and parents' frequency of bonding media use). General talk was predicted by these variables, in addition to home environment variables like ease of separate viewing (positively), number of kids in the household (negatively), and the number of child's bedroom devices (negatively). Mothers were more likely than fathers to engage in general talk. These differing patterns of prediction suggest that active mediation may be a result of parental or child characteristics, while general talk is also influenced by contextual characteristics.

Taken together, these two categories capture two different types of talk that can occur during shared media time, but they also vary by medium. For television, general talk, which referred to talking about issues/topics related to the content (e.g. dating, bullying), and active mediation were positively associated with stronger parent-child relationships (i.e., higher reports of parent-child closeness and child disclosure); however, for shared video game time, talk about strategy specifically (but not game topics), was positively associated with more parent-child closeness and child disclosure.

This distinction between different types of talk during shared media time is a novel contribution to the literature. Because active mediation is often studied in the context of parents buffering children from negative impacts of media, the items frequently used by researchers

focus on ways for parents to teach children about the media content (e.g., point out something good or bad a character does, Valkenburg et al., 1999) or to express disapproval/approval of media messages (Austin, Bolls, Fujioka, & Engelbertson, 1999). Less frequently have researchers examined the general talk during shared viewing and discussion of topics related to the content. While the measurement of general talk was less than optimal because of the small number of items, the results showed evidence of two distinct concepts.

The shared media experience in general is a common activity among parents and children that does not appear to be displacing general shared time together, as parents reported spending 10 hours/week in other leisure activities, and shared non-media time positively predicts shared media time. While shared media time is similar to shared non-media time in that parents with more education report spending less time in both shared media and non-media activities, the results suggest that shared *media* time may uniquely contribute to the parent-child relationship. First, the associations between shared media time and family outcomes were present over and above the effects of shared non-media time. Secondly, the different patterns of predictors and mediators for shared television time and shared gaming time suggest that the medium provides varying affordances and opportunities for parents and children that may contribute to stronger parent-child relationships (e.g., via active mediation in the television context or strategy discussion in the gaming context). The descriptions of memorable shared time provided hints as to possible ways the gaming experience may be different than the shared television experience as children sometimes took the role of teacher, and parents as student to learn game skills. Finally, as the number of different media titles suggests, shared media time might provide stimuli for discussions on a variety of subjects, which can be more convenient and less expensive than experiencing the material in person.

In order to explore the mechanisms through which media time could be positive, I examined the possible mediating roles of active mediation, general talk, physical contact, and positive affect in the relationship between shared media time and family outcomes, specifically parent-child closeness and child disclosure. Furthermore, I explored moderated mediation with regard to child age, gender, and parental bonding media use, and explored parents' memorable shared media moments to further understand what happens during shared time. As a whole, the current study contributes three important implications: (1) the extent to which parents experience positive response states during shared media time changes as a function of child age; (2) the way that parents and children spend time together sharing media explains its impact; and (3) intentionality of the parent to use media to bond is key to positive results.

### **The Shared Experience Changes for Different Children**

As noted above, child age predicted amount of shared media use. Contrary to the hypotheses, child age did not moderate the relationship between shared media time and the response variables. However, child age was a significant predictor of parents' responses to shared media time. That is, parents of younger and older children report different experiences while using media with their child.

For parents of younger children (relative to parents of older children), shared media experiences tended to involve more physical contact with the child (e.g., cuddling, high fives) and active mediation of TV content (designed to help children understand what they see) or game discussion (talk focused on game plots). For parents of older children (relative to parents of younger children), shared TV experiences tended to involve more positive affect and more general talk (e.g., talking about topics related to the content on the screen). The reports of higher levels of positive affect with older children are contrary to the accounts that emphasize negative

affect and family conflict during adolescence (Steinberg & Silk, 2006). It is possible that the current findings reflect the parent's increased liking of content shared with older children, as suggested by Dorr et al. (1989). However, it could also be a function of parental awareness of the fleeting time they have with their child, thereby taking more opportunities to enjoy the precious time they have together. This sentiment appeared in parents' descriptions of memorable shared media time. Taken together, the findings suggest a shift in the general shared television experience as the child gets older in that parents cuddle less, but they feel more positive during the experience and shift their discussions from an instructive, content-focused nature to a more general, reflective nature.

For shared video game time, discussions about game strategy appear to occur regardless of the child's age, but parents reported cuddling with and talking about game topics more frequently with younger children. Perhaps this is similar to the transformation of the relationship between parents and children described by Larson and colleagues (1996). They argued that the shifts in time spent among adolescents and their families over the course of adolescent development was one of transformation rather than one of mere disengagement on the part of adolescents. Thus, within shared media time, parents shift their behaviors with the development of their child. As the current findings are correlational, longitudinal data will be necessary to test this assumption.

These shifts in media experiences based on child age contribute to our understanding of the ways in which family processes change as the developmental needs of members change. As reflected in human ecological systems theory (Bronfenbrenner, 1986), the chronosystem is an important determinant of the shared media experience. That is, parents appear to adjust their responses during shared media time based on their child's age. However, results indicated that

the positive outcomes associated with shared media time were not significantly affected by child age, thus, shared media time has the potential to be a source of strength in the parent-child relationship regardless of the child's age. This matters because at moments when macro-level stresses (e.g., parental work stress or child stress from school) may strain the parent-child relationship, shared media time might function as a buffer, especially if the parent intentionally uses media to bond with their child.

In terms of child gender, only a few significant results were found. The content shared with boys and girls appears to be different, as boys are more likely to watch movies and play video games with their parents that contain content for more mature audiences than their age (i.e., films rated PG 13 and games rated for teens or mature audiences). Parents also spend more time playing video games with their sons than their daughters. Girls, on the other hand, are more likely to cuddle with parents during shared media time, and more often play video games that are rated for everyone. Despite these differences in the shared content and experiences, the relationship between shared media time and active mediation, discussion, physical contact, and positive affect during shared media time was consistent for both boys and girls.

### **The Way Parents Share Time is Important**

As mentioned previously, the model predicted a positive total effect of shared media time on child disclosure and parent-child closeness, and positive indirect effects via active mediation, general talk, physical contact, and positive affect. The total effect for shared television time was not significant for child disclosure or parent-child closeness, and the total effect for shared video game time was negative for both outcomes. Thus, sheer amount of shared television time was not significantly related to the parent-child outcomes, and the amount of shared video game time was negatively associated with reports of child disclosure and parent-child closeness. This difference

in associations reinforces the notion that not all shared time is the same, and opens the door for further investigation into why amount of video game time was negatively related to family outcomes.

Although the sheer amount of shared media time did not predict positive family outcomes, there were significant positive indirect paths, suggesting that what families do during the shared time is most important. Results indicated that active mediation and strategy discussions during the shared media time were positively associated with parents' reports of disclosure from and closeness with the child. In addition, physical contact during the shared media time positively impacted parent-child closeness. This suggests that the time spent in front of the television together or sharing video game time can encourage more child disclosure and feelings of closeness if the parent is also helping the child understand what's on the screen or discussing game strategies. If they are cuddling during this time as well, it could also positively affect feelings of closeness. Thus, it appears that the behaviors that occur during the shared time may contribute to strengthening the relationship.

While the effect sizes are small, the meaningfulness of the findings should not be dismissed. Shared media time is a common activity that, given these findings, has the potential to plant a seed for positive relationship development. That is, even if the increases in parental feelings of closeness or amount of disclosure from the child are only small, these perceptions may be reinforced over the multiple shared media opportunities (a reported average of 11 hours/week), and thus have the potential for larger impacts. In addition, small changes in parents' feelings of closeness with and disclosure from their child might provide needed buffers if the parent-child subsystem becomes strained (e.g., due to parental divorce or child going

through puberty). Longitudinal research is needed to further explore the long-term impact of consistent shared media time as well as the causal direction of the relationships.

The relationships between shared media time and active mediation, strategy discussion and physical contact did not change based on the age or gender of the child, with one exception. Strategy discussion had a stronger impact on parent-child closeness for older children than younger children. While the persistence of the positive relationships across ages and gender is encouraging, the results also show that parents were less likely to engage in active TV mediation and physical contact during shared media time with older children. Strategy discussion, on the other hand, was not influenced by child age. Taken as a whole, if parents are encouraged to maintain or increase the amount of television active mediation, game strategy discussion, and physical contact during shared media time as their child grows up, these behaviors may be likely to strengthen the parent-child relationship, as reflected in parent-perceived closeness and child disclosure.

Although not hypothesized, the findings indicated significant direct effects for both shared media models, (i.e., remaining association between shared media time and disclosure or closeness after partialling out the positive indirect paths via the response states). The direction of the relationship varied by child age. There was a small negative direct effect of shared TV time on child disclosure and parent-child closeness for younger children (3-7 years old), but a small positive direct effect on disclosure for older adolescents (15.5 – 17-year-olds). Similarly, there was a small negative direct effect of shared video gaming on younger children (12 years old and younger).

These findings extend the work of Coyne et al. (2014b) who reported a positive association between family media use and disclosure of 13- to 16-year-old boys (but not girls).

The current findings indicated that the nature of this relationship may be quite different for younger children, and that positive outcomes may be present for both genders. Unlike Padilla-Walker and colleagues (2012), the current research did not find a significant total or direct effect of shared media time on parent-child closeness.

Given the connections between closeness and positive child outcomes (e.g., self-esteem; Harris et al., 2015), as well as the protective nature of child disclosure against negative behaviors (e.g., delinquency, adolescent substance use; Soenens et al., 2006, Kerr et al., 2010), these findings suggest possible strategies for parents. Engaging in discussions during shared screen time about what's good or bad, or helping them understand what is on the screen, and sharing gaming strategies, or using the opportunity to have some physical contact, may bolster the relationship, which has the potential to benefit the child directly.

### **Intentionality Matters**

The results replicate and extend previous research with young, preschool-aged children that found that parents sometimes explicitly use shared TV time to bond with their child (Nabi & Krcmar, 2014; Vaala, 2014). The current study examined bonding media use (e.g., using media to create a common bond with a family member, to enhance family solidarity) across a wider range of child ages (3-17). Notably, parents' bonding media use did not vary by age of the child, (or by child gender), although younger parents were more likely to report media use for bonding. Bonding media use was positively predicted by the amount of time the parent and child spent together in non-media activities (e.g., leisure activities, eating meals) and by how easy it was for the child to watch separately. The easier it was for the child to watch separately from the parent, the more the parent reported using media to bond. Bonding media use itself significantly predicted amount of shared media time (both shared TV time and shared video game time). This

suggests the intentional use could be a way to counteract children having more opportunities to engage with media on their own. It is also possible that media-rich homes increase the availability of media to use for relational purposes, or that parents' own media use or orientation toward media might not only impact their intentional use for bonding, but shared media time in general.

Even more importantly, the current findings extend the limited prior research on intentional use of media for bonding by indicating that media use for bonding affects the influence of shared media time on the response states experienced while using media with the child. That is, the positive response states tended to be experienced only among parents who reported high levels of media use for bonding. Among those who reported less use of shared media time to bond with their child, amount of shared media time did not predict the prevalence of these positive responses. Thus, the positive indirect paths from shared media use → positive affect → child disclosure or parent-child closeness were significant only for parents who reported mean or high levels of bonding media use. The one exception was shared video game use → strategy discussion → child disclosure or parent-child closeness, which appeared to strengthen for parents who reported higher levels of bonding media use.

Additional analyses, in which bonding media use was examined as the focal predictor of family outcomes, indicated that intentional use of media to promote family bonding (i.e., bonding media use) was associated with more child disclosure and parent-child closeness (as reflected in significant total effects of bonding media use on the outcomes). For closeness, this relationship was mediated by TV active mediation, general TV talk, physical contact, and positive affect when sharing television together. For child disclosure, the relationship was mediated by active mediation, general talk, and positive affect during shared television time.

Similarly, in models with the video game response variables, the relationship between bonding media use and parent-child closeness was mediated by strategy discussion and positive affect. Likewise, positive affect, strategy discussion, and physical contact mediated the relationship between bonding media use and child disclosure. However, the relationship between physical contact and child disclosure was negative in the video game model.

Parents' open-ended responses provided further insights into these patterns and suggested new ways to think about what happens during shared media time. The findings from the qualitative analysis provided support for the proposed mechanisms, as parents described instances of active mediation, general talk, physical contact and overall positive affect while recounting a memorable shared media moment. Their comments also suggested additional possible mediators that could be examined in further research. Parents described moments when they extended the messages or topics from the screen into real life, when favorite content was shared among family members, when children taught their parents new skills, when parents and children worked together (e.g., to overcome a challenge in a videogame), when they competed with one another, and when they had long-standing "appointments" to watch or play together (e.g., every Friday night, or every Thanksgiving). This appointment viewing reinforces the notion that family members can use media intentionally as a tool for family connection. Hearing parents describe the positive emotions from their weekly shared show or annual family traditions strengthens the quantitative findings of positive affect experienced during shared media time. As shown in the opening quote of this chapter, watching *The Peanuts Movie* can provide an environment that invites child disclosure (i.e., chatting about his school day) via cuddling and positive affect. Likewise, introducing your daughter to the Harry Potter series might bring you closer via general talk and positive affect.

## Limitations

While this research makes many contributions, it is not without limitations. Due to the cross-sectional nature of the research, we cannot draw definitive conclusions about the causal order. Thus, it is inappropriate to suggest that parents can simply plan to engage in more shared media time and that positive response states will occur and will result in more closeness and disclosure. Nonetheless, this research provides evidence that shared media time offers opportunities for positive experiences that are positively connected with parent-child closeness and perceived child disclosure. Such experiences tend to occur when parents are more (rather than less) focused on bonding media use. It seems entirely plausible that these are reciprocal relationships, such that happier families engage in more shared media use and experience more positive responses to shared media time, and that these positive responses further strengthen the family relationship. Clearly, longitudinal research is needed to help clarify the nature of these associations over time.

Additionally, more research is needed to distinguish active mediation from general talk still further as there were few general talk items. More research is needed to explicate the general talk variable and provide additional items to cover various objectives of parental discussions during shared media time. This research provides other possible areas to test, such as competition, sharing favorites, or collaboration as a starting point. In addition, the research only gathered the perspective of one parent in each family, and in order to create a fuller picture of family interaction, multiple family members need to be included. Thus, future research should acquire views from children and compare them to parental perceptions. In addition, future research can compare the themes produced when asking children to document their memorable shared media time with a parent. Perhaps the goodness that comes from that time is different for

the child (e.g., changes the perceptions of the parent) or perhaps they are the same (e.g., bonding over sharing favorites, competition, etc.).

## **Conclusion**

Despite these limitations, the current study provided a first step in quantifying four possible mechanisms by which shared media time positively impacts the parent-child relationship. Shared television and video game time, at least as parents describe here, are opportunities for direct interaction between parents and children in a positive context where they can share with one another and strengthen their relationship. Given the shifts that occur in the family system as children mature, this project provides hope for shared media time as a place where the family can reinforce their familial connections and positively adapt to changes. Future research building from this will help understand the various ways parents and children can use the ubiquitous act of media use to strengthen their bond.

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Table 1

*Descriptive Statistics: Shared Time*

Shared Time	Mean Hours/wk	SD	Skew	Percentages in Whole Sample			
				Never	1-3 times per month	Once or few times per wk	Once a day or more
<b>Media Time</b>							
TV/movies	10.72	7.80	2.26	1%	8%	50%	41%
Video Games	3.48	4.60	2.68	28%	22%	36%	14%
Texting				51%	7%	19%	24%
Talk on Phone				26%	25%	32%	17%
Email				73%	10%	12%	5%
<b>Non-Media Time</b>							
Shared Leisure	9.55	10.27	3.50	2%	11%	49%	39%
Shared Meals	8.44	9.15	7.74	.3%	3%	17%	79%
Shared Chores	4.23	5.56	6.71	4%	16%	52%	28%
Shared Religious	1.50	3.35	9.53	43%	19%	29%	8%

Table 2

*Shared Media Content: Percent within Age Group and Gender at Each Rating Level*

TV Ratings	Child Age				Child Gender		Most Common Examples
	3-5 n=1174	6-10 n=1021	11-13 n=536	14-17 n=782	Male n=1875	Female n=1666	
TV-Y	60%	16%	3%	1%	26%	25%	<i>Paw Patrol, Mickey Mouse Club House</i>
TV-Y7	14%	24%	7%	2%	15%	11%	<i>Spongebob Square Pants</i>
TV-G	15%	22%	14%	7%	10%	21%	<i>Peppa Pig</i>
TV-PG	6%	25%	33%	32%	21%	21%	<i>The Flash</i>
TV-14	5%	12%	35%	43%	21%	19%	<i>The Simpsons, Big Bang Theory</i>
TV-MA	1%	2%	7%	14%	7%	4%	<i>The Walking Dead</i>
<b>Movie Ratings</b>	n=1193	n=1109	n=556	n=809	n=2004	n=1694	
G	32%	16%	7%	3%	16%	18%	<i>Finding Nemo</i>
PG	57%	55%	34%	24%	42%	50%	<i>Frozen, Inside Out</i>
PG-13	10%	26%	49%	51%	34%	25%	<i>Hunger Games</i>
R	1%	4%	10%	22%	8%	7%	
NC-17	0%	0%	0.2%	0%	.05%	0%	
<b>Game Rating</b>	n=466	n=709	n=345	n=404	n=1170	n=769	
Early Childhood	3%	0%	0%	0%	1%	.3%	
Everyone	77%	76%	63%	51%	63%	77%	<i>Mario, Minecraft</i>
Teen	13%	12%	15%	23%	16%	13%	<i>Halo, Candy Crush</i>
Mature	8%	12%	23%	26%	20%	10%	<i>Grand Theft Auto</i>

*Note.* Percentages are within row by variable, e.g., percent of those coviewing TV-Y7 programs in each age group.

Table 3  
*Predictors of Shared Media Time*

	Shared TV ( $\beta$ )	Shared Gaming ( $\beta$ )
Child age	-.13***	-.04
Child gender (0 male, 1 female)	-.01	-.09***
Parent age	-.01	-.18***
Parent education	-.12***	-.10***
Parent gender (0 male, 1 female)	.00	-.20***
Parental bonding media use	.17***	.15***
Shared non-media time (log)	.36***	.18***
Ease of separate viewing	.03	.05
Child has own room (0 no, 1 yes)	.01	.01
Number of bedroom devices (log)	.19***	.22***
Number of children	-.06*	-.04
<b>R<sup>2</sup></b>	<b>.26***</b>	<b>.24***</b>
<b>F</b>	<b>46.24 (11, 1469)</b>	<b>41.09 (11, 1470)</b>
Age squared	.07	-3.80***
Age cubed	--	1.77**
<b><math>\Delta R^2</math></b>	<b>.000</b>	<b>.03***</b>

Note. \*\*p<.01. \*\*\*p<.001

Table 4

*Predictors of Parental Use of Media to Bond*

	Bonding Media Use ( $\beta$ )
Child age	.07
Child gender (0 boy, 1 girl)	.00
Parent age	-.07*
Parent gender (0 father, 1 mother)	.00
Parent education	.03
Shared non-media time (log)	.11***
Child has own room (0 no, 1 yes)	-.03
Ease of separate viewing	.25***
Number of bedroom devices (log)	-.02
Number of children	-.02
<b>R<sup>2</sup></b>	<b>.07***</b>
<b>F</b>	<b>11.67 (10, 1471)</b>

Note. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$

Table 5  
*Descriptive Statistics: Experiences During Shared Media Use (Response States)*

				Percentages in Whole Sample				
				Never	Almost	Occasionally	Almost	Every
				1	Never	3	Every	Time
					2		Time	5
							4	
<b>Television (TV)</b>								
<b>Response States</b>	<b>Mean</b>	<b>SD</b>	<b>Skew</b>					
General Talk	3.70	.76	-.19	1%	11%	44%	34%	10%
Active Mediation	3.54	.86	-.17	3%	18%	42%	28%	9%
Physical Contact	2.64	.98	.01	24%	34%	33%	8%	1%
<b>Video Game (VG)</b>								
<b>Response States</b>								
Strategy Discussion	3.66	.95	-.59	4%	10%	33%	38%	15%
Game Discussion	2.92	.95	.08	13%	37%	34%	12%	4%
Physical Contact	2.43	1.04	.28	32%	33%	25%	8%	1%
	<b>Mean</b>	<b>SD</b>	<b>Skew</b>	<b>1-2</b>	<b>3-4</b>	<b>5</b>	<b>6</b>	<b>7</b>
TV Positive Affect	6.10	.90	-1.25	1%	11%	23%	43%	22%
VG Positive Affect	6.02	.99	-1.20	1%	15%	23%	35%	26%

Table 6  
*Direct and Indirect Effects of Shared TV Time, Moderated by Child Age*

	<b>Predicting the Mediators</b>			
	General Talk (M1)	Active Mediation (M2)	Physical Contact (M3)	Positive Affect (M4)
Shared TV Time→Mediator	.04	.07*	.07**	.04
Shared TV Time x Child Age→Mediator	-.00	-.01	.03	-.03
Child's Age	.11***	-.13***	-.57***	.12***
Child Gender (0 M, 1 F)	.00	.01	.10***	-.01
Parent Gender (0 M, 1 F)	.12***	.01	.10***	.12***
Parent Age	-.01	-.05	-.03	-.00
Parent Education	.03	.01	.08***	.03
Shared Non-Media Time	.20***	.17***	.06*	.17***
Number of children	-.05	-.02	-.05*	-.02
Ease of separate viewing	.13***	.01	-.01	.17***
<b>R<sup>2</sup></b>	<b>.08***</b>	<b>.09***</b>	<b>.43***</b>	<b>.09***</b>
	<b>Predicting Parent-Reported Outcomes</b>			
	Child Disclosure (N=1468)	Parent-Child Closeness (N=1487)		
<b>Direct Effect: Shared TV Time→Family Outcome</b>	-.03	-.02		
M1 General Talk→Family Outcome	.16***	.09**		
M2 Active Mediation→Family Outcome	.08**	.08**		
M3 Physical Contact→Family Outcome	-.01	.07*		
M4 Positive Affect→Family Outcome	.13***	.24***		
Shared TV Time x Child Age→Family Outcome	.09***	.06**		
Child's Age	-.11**	-.31***		
Child's Gender (0 M, 1 F)	.09***	.05*		
Parent Gender (0 M, 1 F)	.12***	.17***		
Parent Age	.06*	.13***		
Parent Education	.02	.01		
Shared Non-Media Time	.14***	.13***		
Number of children	.09**	.01		
Ease of separate viewing	.07*	.08**		
<b>R<sup>2</sup></b>	<b>.18***</b>	<b>.29***</b>		

Table 6 continued. Direct and Indirect Effects of Shared TV Time, Moderated by Child Age

	Predicting Parent-Reported Outcomes	
	Child Disclosure (N=1468)	Parent-Child Closeness (N=1487)
<b>Total Effect<sup>a</sup></b>	<b>-.01</b>	<b>.002</b>
<b>Indirect Effect</b>	<b>.02</b>	<b>.02*</b>
<b>Shared TV Time → Family Outcome via...</b>		
General Talk	.01	.004
Active Mediation	.01*	.01*
Physical Contact	.00	.01*
Positive Affect	.005	.01
<b>Simple Slopes for Moderation of Direct Effect</b>		
<b>Shared TV Time → Family Outcome at...</b>		
- 1 SD Child Age	-.12**	-.09*
M Child Age	-.03	-.02
+ 1 SD Child Age	.06	.04

Note. <sup>a</sup>Total and indirect effects were generated using the simple mediation model 4. Coefficients are standardized. Separate models were run for the two outcomes, but are presented in this single table for comparison and parsimony. Coefficients for the initial paths (predictor → mediator) were virtually identical between both outcomes, with no changes in significance or direction, thus only one set is presented for parsimony. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

Table 7  
*Direct and Indirect Effects of Shared TV Time, Moderated by Bonding Media Use*

	<b>Predicting the Mediators</b>			
	General Talk (M1)	Active Mediation (M2)	Physical Contact (M3)	Positive Affect (M4)
Shared TV Time→Mediator	.01	.03	.05*	-.01
Shared TV x BMU→Mediator	.07*	.09**	.03	-.01
Bonding Media Use (BMU)	.26***	.28***	.14***	.22***
Child's Age	.09**	-.16***	-.58***	.11**
Child Gender (0 B, 1 G)	-.00	.01	.10***	-.01
Parent Gender (0 M, 1 F)	.12***	.01	.10***	.12***
Parent Age	.02	-.03	-.01	.01
Parent Education	.02	.00	.07**	.01
Shared Non-Media Time	.19***	.16***	.05*	.15***
Number of children	-.06*	.04	-.05*	-.03
Ease of separate viewing	.07**	-.05	-.04*	.13***
<b>R<sup>2</sup></b>	<b>.15***</b>	<b>.17***</b>	<b>.45***</b>	<b>.13***</b>
<b>Simple Slopes</b>				
<b>Shared TV Time → Mediator at...</b>				
- 1 SD Parental Bonding Media Use	<b>-.06</b>	<b>-.05</b>		
M Parental Bonding Media Use	<b>.01</b>	<b>.04</b>		
+ 1 SD Parental Bonding Media Use	<b>.08*</b>	<b>.12**</b>		
<b>Predicting Parent-Reported Outcomes</b>				
	Child Disclosure (N=1468)	Parent-Child Closeness (N=1487)		
<b>Direct Effect:</b> Shared TV Time→Family Outcome	-.03	-.02		
M1 General Talk→Family Outcome	.15***	.08**		
M2 Active Mediation→Family Outcome	.07*	.07*		
M3 Physical Contact→Family Outcome	-.01	.07*		
M4 Positive Affect→Family Outcome	.12***	.23***		
Shared TV Time x BMU→Family Outcome	.03	.04		
Parental Bonding Media Use	.08**	.05*		
Child's Age	-.11**	-.31***		
Child's Gender (0 M, 1 F)	.09***	.05*		
Parent Gender (0 M, 1 F)	.12***	.17***		
Parent Age	.07*	.13***		
Parent Education	.02	.01		
Shared Non-Media Time	.14***	.13***		
Number of children	.09**	.01		
Ease of separate viewing	.05	.07**		
<b>R<sup>2</sup></b>	<b>.18***</b>	<b>.29***</b>		

Table 7 continued. Direct and Indirect Effects of Shared TV Time, Moderated by BMU

Simple Slopes of the Indirect Paths	Conditional Indirect Effects for Disclosure		Conditional Indirect Effects for Parent-Child Closeness	
	Via General Talk (M1)	Via Active Mediation (M2)	Via General Talk (M1)	Via Active Mediation (M2)
<b>Shared TV Time → Mediator → Family Outcome at...</b>				
- 1 SD Parental Bonding Media Use	<b>-.01</b>	<b>-.003</b>	<b>-.004</b>	<b>-.003</b>
M Parental Bonding Media Use	<b>.001</b>	<b>.002</b>	<b>.00</b>	<b>.002</b>
+ 1 SD Parental Bonding Media Use	<b>.01</b>	<b>.01*</b>	<b>.01*</b>	<b>.01*</b>

*Note.* Coefficients are standardized. Separate models were run for two outcomes, but are presented in this single table for comparison and parsimony. Coefficients for the initial paths (predictor → mediator) were virtually identical between both outcomes, with no changes in significance or direction, thus only one set is presented for parsimony. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

Table 8  
*Direct and Indirect Effects of Shared Video Game Time, Moderated by Child Age*

	<b>Predicting the Mediators</b>			
	Strategy Discussion (M1)	Game Discussion (M2)	Physical Contact (M3)	Positive Affect (M4)
Shared VG Time→Mediator	.29***	.37***	.09**	-.03
Shared VG Time x Child Age→Mediator	.08	.07	.04	.01
Child Age	-.02	-.10*	-.62***	.09*
Child Gender (0 M, 1 F)	.03	-.01	.11***	.01
Parent Age	-.06	-.09*	.00	.03
Parent Gender (0 M, 1 F)	.004	.02	.10***	.09**
Parent Education	.06	.09**	.10***	.01
Shared Non-Media Time	.08**	.05	.03	.15***
Number of children	.06	.00	-.04	-.02
Ease of Separate Viewing	.13***	.06	.02	.21***
<b>R<sup>2</sup></b>	<b>.09***</b>	<b>.11***</b>	<b>.38***</b>	<b>.09***</b>
	<b>Predicting Parent-Reported Outcomes</b>			
	Child Disclosure (N=1068)	Parent-Child Closeness (N=1076)		
<b>Direct Effect: Shared VG Time→Family Outcome</b>	-.13**	-.15***		
M1 Strategy Discussion→Family Outcome	.14***	.09**		
M2 Game Discussion→Family Outcome	.01	.01		
M3 Physical Contact→Family Outcome	-.01	.08*		
M4 Positive Affect→Family Outcome	.20***	.30***		
Shared VG Time x Child Age→Family Outcome	.08*	.13***		
Child Age	-.15***	-.38**		
Child's Gender (0 M, 1 F)	.09**	.04		
Parent Age	.08*	.13***		
Parent Gender (0 M, 1 F)	.13***	.16***		
Parent Education	-.004	.002		
Shared Non-Media Time	.15***	.13***		
Number of children	.08*	.03		
Ease of Separate Viewing	.07*	.13***		
<b>R<sup>2</sup></b>	<b>.19***</b>	<b>.27***</b>		

Table 8 continued. Direct and Indirect Effects of Shared Video Game Time, Moderated by Child Age

	Predicting Parent-Reported Outcomes	
	Child Disclosure (N=1068)	Parent-Child Closeness (N=1076)
<b>Total Effects<sup>a</sup></b>	<b>-.10**</b>	<b>-.14***</b>
<b>Indirect Effect</b>	<b>.03*</b>	<b>.03</b>
<b>Shared VG Time → Family Outcome via...</b>		
Strategy Discussion	.04*	.03*
Game Discussion	.002	.002
Physical Contact	-.000	.01*
Positive Affect	-.01	-.01
<b>Simple Slopes of Direct Effect</b>		
<b>Shared TV Time → Family Outcome at...</b>		
- 1 SD Child Age	-.20***	-.27***
M Child Age	-.13**	-.15***
+ 1 SD Child Age	-.05	-.03
	<b>Conditional Indirect Effects for Parent-Child Closeness</b>	
	Via Strategy Discussion (M1)	
<b>Shared TV Time → Mediator → Family Outcome at...</b>		
- 1 SD Child Age	<b>.02*</b>	
M Child Age	<b>.03*</b>	
+ 1 SD Child Age	<b>.03*</b>	

Note. <sup>a</sup>Total and indirect effects were generated separately using the simple mediation model 4. VG=Video game. Coefficients are standardized. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

Table 9  
*Direct and Indirect Effects of Shared Video Game Time, Moderated by Bonding Media Use*

	<b>Predicting the Mediators</b>			
	Strategy Discussion (M1)	Game Discussion (M2)	Physical Contact (M3)	Positive Affect (M4)
Shared VG Time → Mediator	.22***	.30***	.18***	.14***
Shared VG x BMU → Mediator	.12**	.10**	.01	.08*
Bonding Media Use (BMU)	.22***	.24***	.16***	.18***
Child's Age	.003	-.09**	-.48***	.05
Child Gender (0 M, 1 F)	.02	-.01	.08**	.04
Parent Age	-.04	-.06	.003	.03
Parent Gender (0 M, 1 F)	.01	.02	.11***	.03
Parent Education	.03	.05	.06*	-.05
Shared Non-Media Time	.06*	.03	.02	.08**
Number of Children	.05	-.01	-.05	-.003
Ease of Separate Viewing	.06	-.01	-.03	.17***
<b>R<sup>2</sup></b>	<b>.15***</b>	<b>.18***</b>	<b>.29***</b>	<b>.14***</b>
<b>Simple Slopes</b>				
<b>Shared VG Time → Mediator at...</b>				
-1 SD Parental Bonding Media Use	.12*	.20***		.10
M Parental Bonding Media Use	.24***	.30***		.18***
+1 SD Parental Bonding Media Use	.35***	.40***		.26***
<b>Predicting Parent-Reported Outcomes</b>				
	Child Disclosure (N=1069)	Parent-Child Closeness (N=1077)		
Shared VG Time → Family Outcome	-.17***	-.22***		
M1 Strategy Discussion → Family Outcome	.12***	.08*		
M2 Game Discussion → Family Outcome	.003	.01		
M3 Physical Contact → Family Outcome	-.07*	-.02		
M4 Positive Affect → Family Outcome	.17***	.25***		
Shared VG x Bonding Media Use → Mediator	.05	.05		
Parental Bonding Media Use	.10**	.08*		
Child's Age	-.14***	-.37***		
Child's Gender (0 M, 1 F)	.08**	.05		
Parent Age	.10**	.15***		
Parent Gender (0 M, 1 F)	.14***	.19***		
Parent Education	-.004	.01		
Shared Non-Media Time	.16***	.15***		
Number of Children	.07*	.02		
Ease of Separate Viewing	.04	.11***		
<b>R<sup>2</sup></b>	<b>.19***</b>	<b>.28***</b>		

*Table 9 continued. Direct and Indirect Effects of Shared Video Game Time, Moderated by Bonding Media Use*

	<b>Conditional Indirect Effects for Child Disclosure</b>		<b>Conditional Indirect Effects for Parent-Child Closeness</b>	
	Via Strategy Discussion (M1)	Via Positive Affect (M4)	Via Strategy Discussion (M1)	Via Positive Affect (M4)
<b>Shared VG Time→Mediator→Family Outcome at...</b>				
<b>- 1 SD Parental Bonding Media Use</b>	<b>.02*</b>	<b>.01</b>	<b>.01*</b>	<b>.02</b>
<b>M Parental Bonding Media Use</b>	<b>.03*</b>	<b>.02*</b>	<b>.02*</b>	<b>.04*</b>
<b>+ 1 SD Parental Bonding Media Use</b>	<b>.04*</b>	<b>.04*</b>	<b>.03*</b>	<b>.05*</b>

*Note.* Coefficients are standardized. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

Table 10  
*Direct and Indirect Effects of Bonding Media Use on Family Outcomes via TV Response States*

	<b>Predicting the Mediators</b>			
	General Talk (M1)	Active Mediation (M2)	Physical Contact (M3)	Positive Affect (M4)
Bonding Media Use (BMU)→Mediator	.26***	.28***	.15***	.22***
Child's Age	.08*	-.16***	-.59***	.11**
Child Gender (0 M, 1 F)	.00	.01	.10***	-.01
Parent Gender (0 M, 1 F)	.12***	.01	.10***	.12***
Parent Age	.02	-.03	-.01	.01
Parent Education	.02	-.01	.06**	.01
Shared Non-Media Time	.19***	.17***	.07***	.15***
Number of Children	-.06*	-.03	-.05*	-.03
Ease of separate viewing	.08**	-.04	-.04	.13***
<b>R<sup>2</sup></b>	<b>.14***</b>	<b>.16***</b>	<b>.44***</b>	<b>.13***</b>
	<b>Predicting Parent-Reported Outcomes</b>			
	Child Disclosure (N=1468)	Parent-Child Closeness (N=1487)		
<b>Direct Effect: BMU→Family Outcome</b>	.07**	.04		
M1 General Talk→Family Outcome	.15***	.08**		
M2 Active Mediation→Family Outcome	.07*	.07*		
M3 Physical Contact→Family Outcome	-.01	.07*		
M4 Positive Affect→Family Outcome	.12***	.23***		
Child's Age	-.11**	-.31***		
Child's Gender (0 M, 1 F)	.10***	.06*		
Parent Gender (0 M, 1 F)	.12***	.17***		
Parent Age	.07*	.13***		
Parent Education	.02	.02		
Shared Non-Media Time	.13***	.13***		
Number of Children	.09**	.01		
Ease of separate viewing	.05	.07**		
<b>R<sup>2</sup></b>	<b>.17***</b>	<b>.29***</b>		
<b>Total Effect</b>	<b>.15***</b>	<b>.15***</b>		
<b>Indirect Effects</b>	<b>.08*</b>	<b>.10*</b>		
<b>BMU → Family Outcome via...</b>				
<b>General talk</b>	.04*	.02*		
<b>Active Mediation</b>	.02*	.02*		
<b>Physical Contact</b>	-.002	.01*		
<b>Positive Affect</b>	.03*	.05*		

*Note.* Coefficients are standardized. Separate models were run for two outcomes, but are presented in this single table for comparison and parsimony. Coefficients for the initial paths (predictor → mediator) were virtually identical between both outcomes, with no changes in significance or direction, thus only one set is presented for parsimony.

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

Table 11  
*Direct and Indirect Effects of Bonding Media Use on Family Outcomes via Video Game Response States*

	<b>Predicting the Mediators</b>			
	Strategy Discussion (M1)	Game Discussion (M2)	Physical Contact (M3)	Positive Affect (M4)
Bonding Media Use (BMU)→Mediator	.28***	.31***	.19***	.23***
Child's Age	.00	-.08*	-.48***	.05
Child Gender (0 M, 1 F)	.01	-.03	.07**	.04
Parent Gender (0 M, 1 F)	-.03	-.02	.08**	.01
Parent Age	-.07	-.11**	-.02	.01
Parent Education	.01	.03	.05	-.06
Shared Non-Media Time	.10***	.08*	.04	.11***
Number of Children	.04	-.02	-.06	-.01
Ease of separate viewing	.08*	.02	-.02	.19***
<b>R<sup>2</sup></b>	<b>.11***</b>	<b>.13***</b>	<b>.28***</b>	<b>.13***</b>
	<b>Predicting Parent-Reported Outcomes</b>			
	Child Disclosure (N=1069)		Parent-Child Closeness (N=1077)	
<b>Direct Effect: BMU→Family Outcome</b>	.11***		.09**	
M1 Strategy Discussion→Family Outcome	.11***		.07*	
M2 Game Discussion→Family Outcome	-.02		-.01	
M3 Physical Contact→Family Outcome	-.08*		-.03	
M4 Positive Affect→Family Outcome	.17***		.24***	
Child's Age	-.15***		-.38***	
Child's Gender (0 M, 1 F)	.10***		.06*	
Parent Gender (0 M, 1 F)	.17***		.22***	
Parent Age	.12**		.17***	
Parent Education	.02		.03	
Shared Non-Media Time	.15***		.13***	
Number of Children	.08*		.03	
Ease of separate viewing	.03		.09**	
<b>R<sup>2</sup></b>	<b>.17***</b>		<b>.26***</b>	
<b>Total Effect</b>	<b>.16***</b>		<b>.16***</b>	
<b>Indirect Effects</b>	<b>.05*</b>		<b>.06*</b>	
<b>BMU → Family Outcome via...</b>				
<b>Strategy Discussion</b>	.03*		.02*	
<b>Game Discussion</b>	-.004		-.004	
<b>Physical Contact</b>	-.01*		-.01	
<b>Positive Affect</b>	.04*		.05*	

*Note.* Coefficients are standardized. Separate models were run for two outcomes, but are presented in this single table for comparison and parsimony. Coefficients for the initial paths (predictor → mediator) were virtually identical between both outcomes, with no changes in significance or direction, thus only one set is presented for parsimony.

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

Table 12  
*Most Memorable Shared Media Time: Frequency of Medium and Themes*

	Percentage (n)	K Alpha ( $\alpha$ )	Brief Description
<b>Medium</b>			
Movie	41% (607)	.92	
TV	23% (336)	.90	
Video Game	23% (335)	.95	
<b>Mediators</b>			
Active Mediation	3% (47)	.86	Child asking questions, parent answering questions
General Talk	8% (120)	.85	Talk about what they see on the screen
Physical Contact	11% (156)	.88	Cuddling, hugging, sitting on lap
Positive Affect	72% (1057)	.78	Expressions of joy, excitement, laughter, pride
<b>Emergent Themes</b>			
Extension of Content	21% (306)	.75	Using the content as a reference for experiences in life or imitating content
Sharing Favorite	6% (92)	.79	Viewing/playing a family member's favorite content or parent's childhood favorite
Teaching/Learning	5% (66)	.82	Child teaching the parent or someone explicitly learning
Competition	5% (71)	.90	Parent beating child, child beating parent in game
Shared Time by Appointment	4% (62)	.77	Routine viewing/playing or annual traditions
Collaboration	3% (50)	.79	Working together during exposure

*Note.* N=1475

Figures

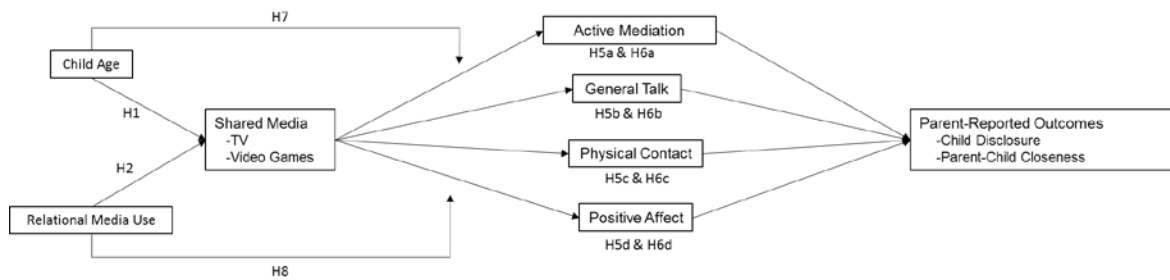


Figure 1 Conceptual model

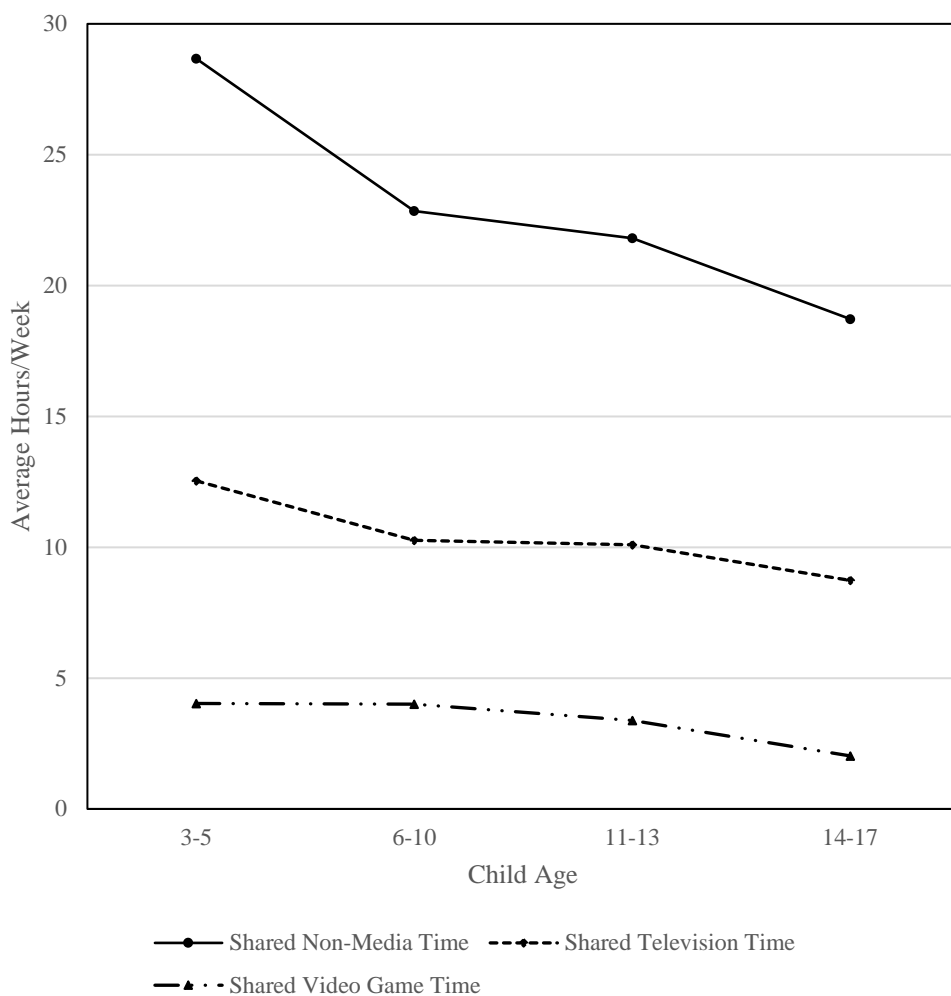


Figure 2 Average shared media and non-media time by child age (with covariates)

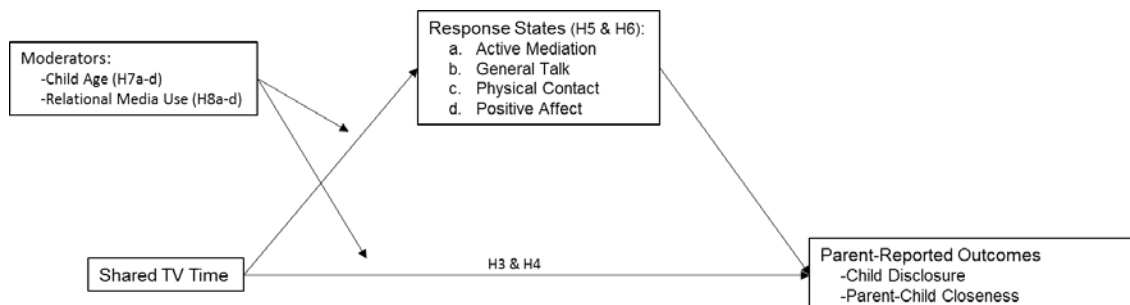


Figure 3 Conceptual model for moderated mediation effects: shared TV

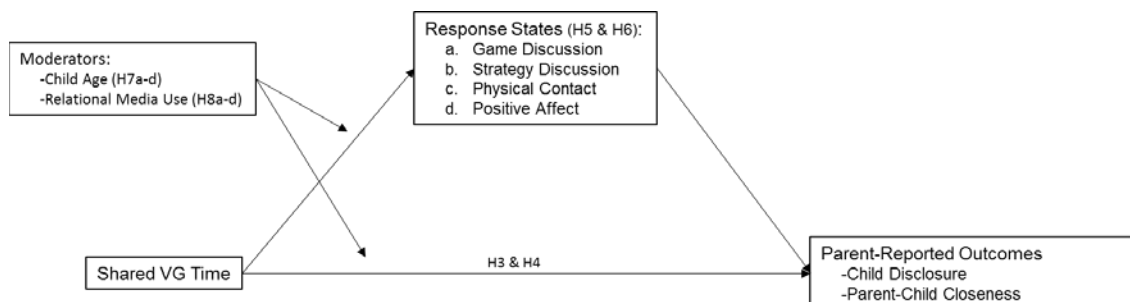


Figure 4 Conceptual model for moderated mediation effects: shared gaming

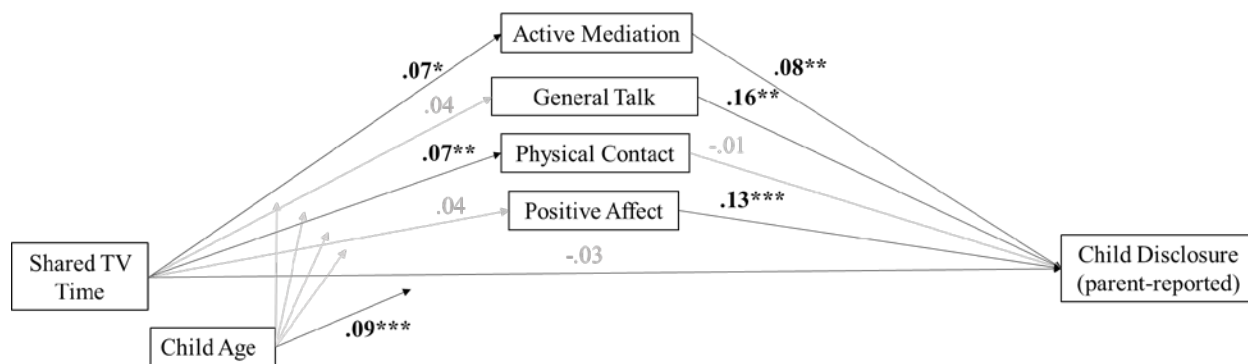


Figure 5 Path diagram for shared television time and child disclosure, by child age. Non-significant paths and coefficients are grayed for clarity. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

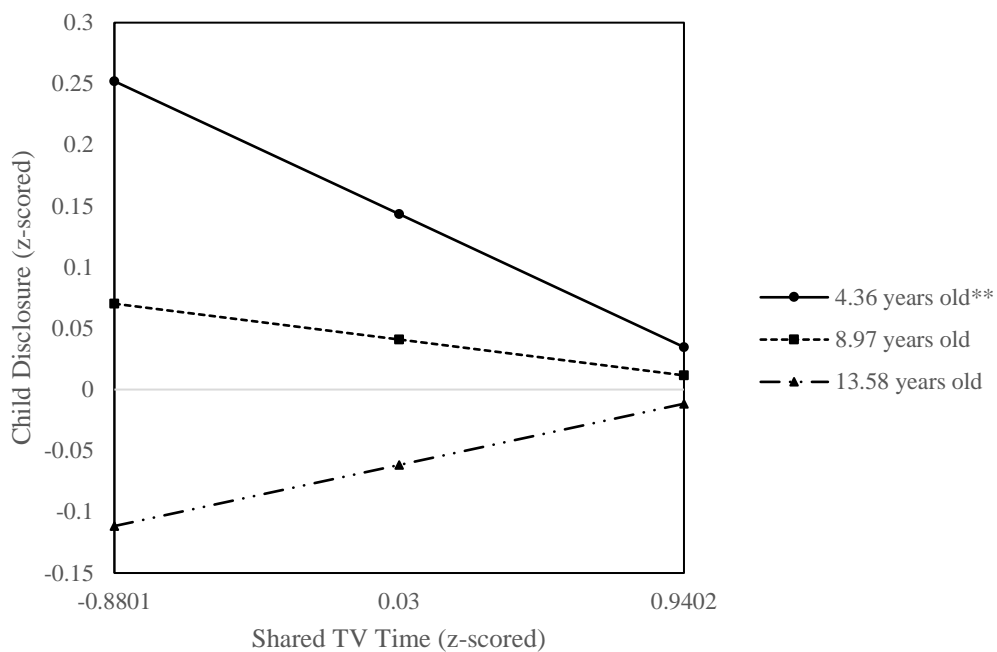


Figure 6 Interaction between shared television time and child age predicting child disclosure. \*\*  $p < .01$ .

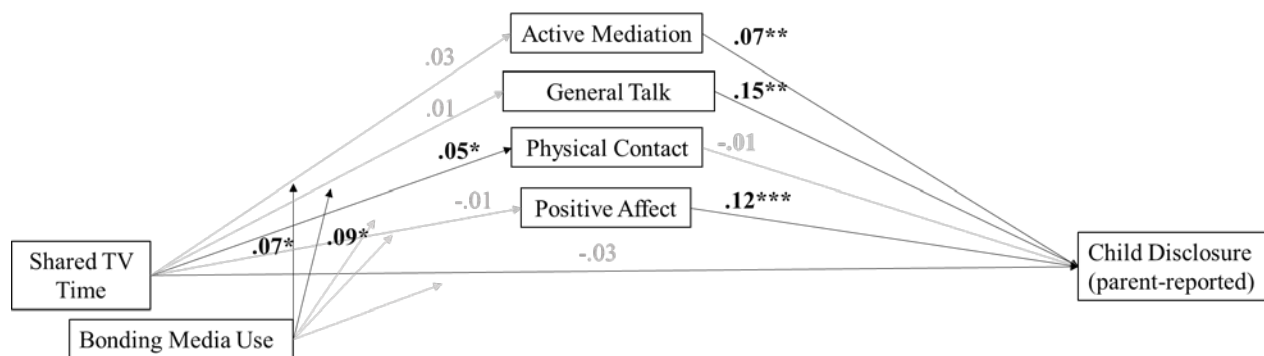


Figure 7 Path diagram for shared television time and child disclosure, by bonding media use. Non-significant paths and coefficients are grayed for clarity. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

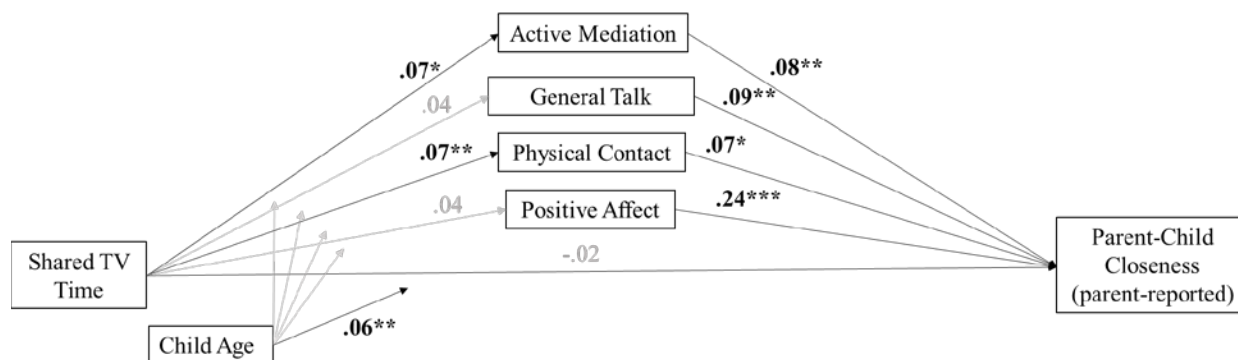


Figure 8 Path diagram for shared television time and parent-child closeness, by child age. Non-significant paths and coefficients are grayed for clarity. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

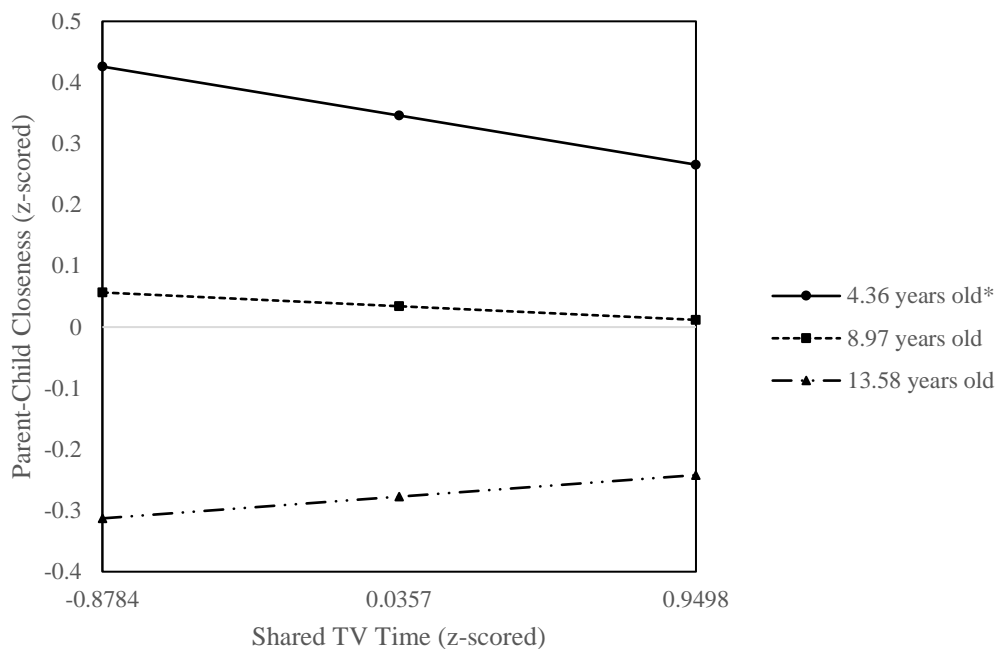


Figure 9 Interaction between shared television time and child age predicting parent-child closeness. \*  $p < .05$ .

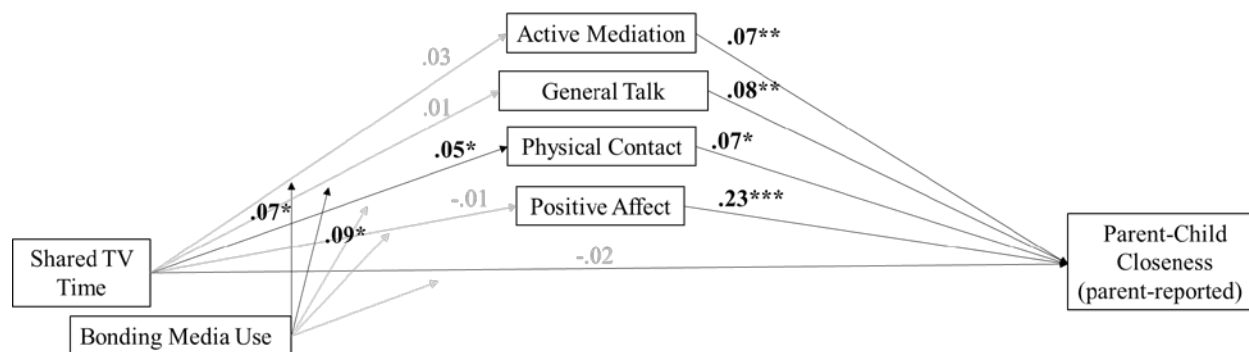


Figure 10 Path diagram for shared television time and parent-child closeness, by bonding media use. Non-significant paths and coefficients are grayed for clarity. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

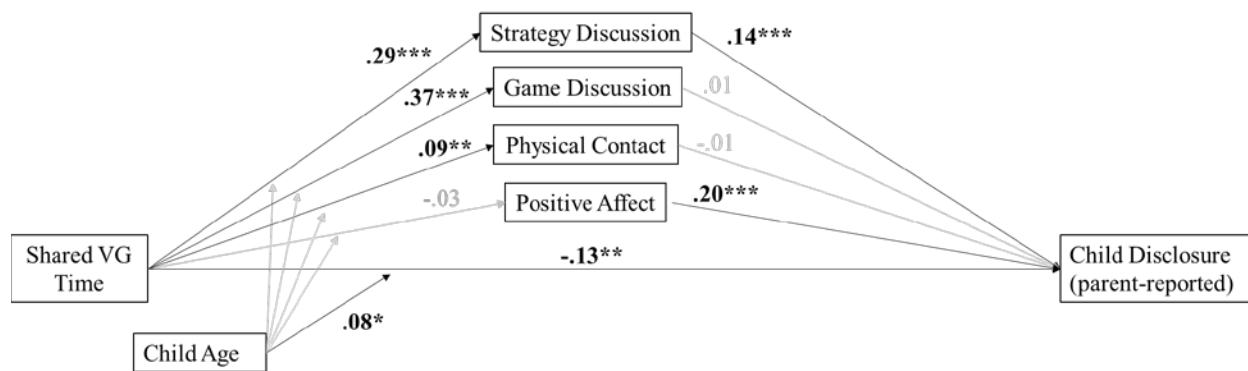


Figure 11 Path diagram for shared video game time and child disclosure, by child age. Non-significant paths and coefficients are grayed for clarity. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

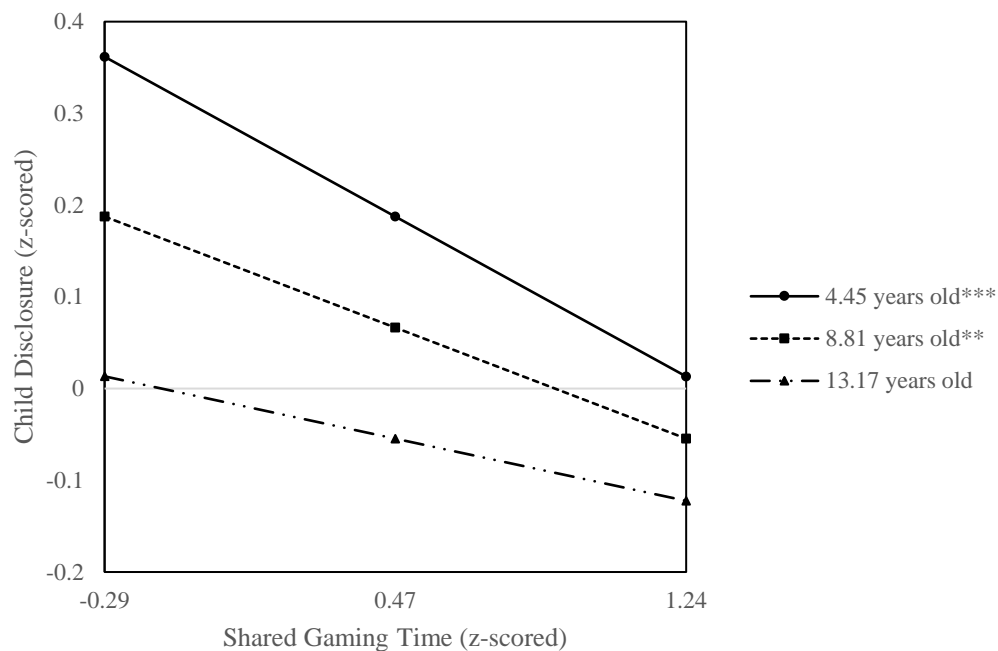


Figure 12 Interaction between shared game time and child age predicting child disclosure. \*\*  $p < .01$ , \*\*\*  $p < .001$ .

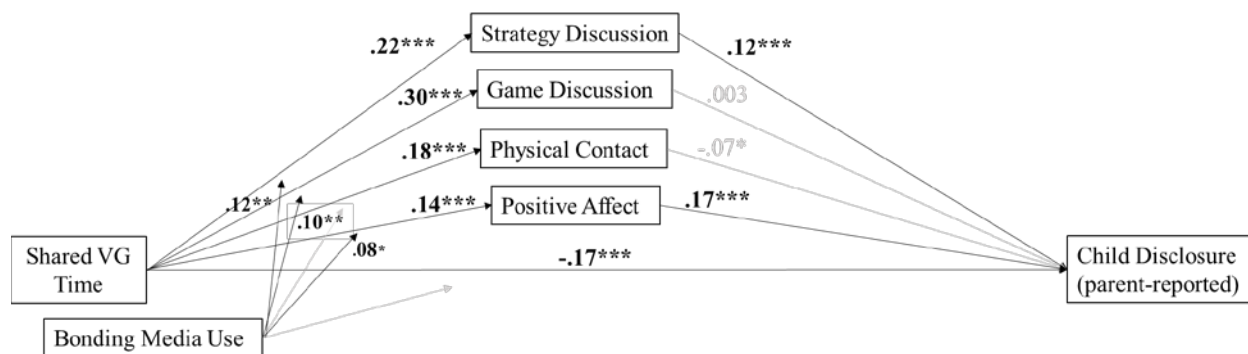


Figure 13 Path diagram for shared video game time and child disclosure, by bonding media use. Non-significant paths and coefficients are grayed for clarity. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

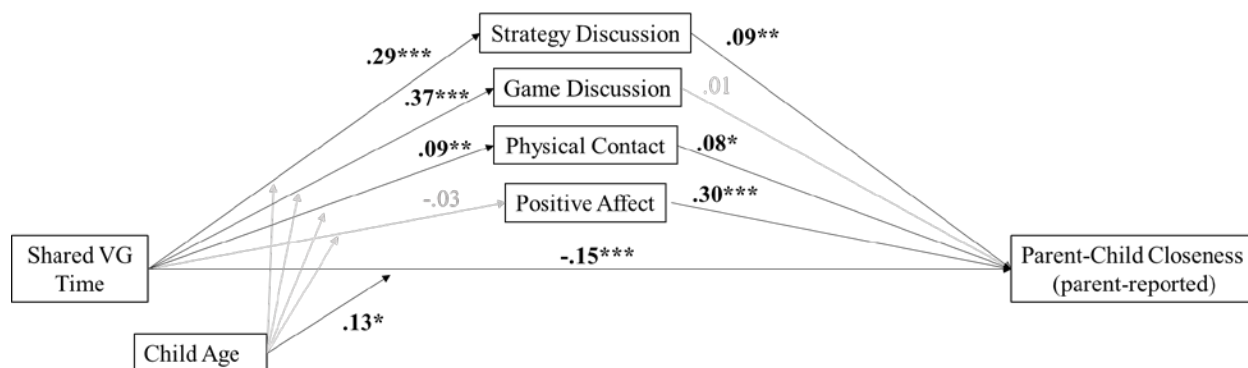


Figure 14 Path diagram for shared video game time and parent-child closeness, by child age. Non-significant paths and coefficients are grayed for clarity. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

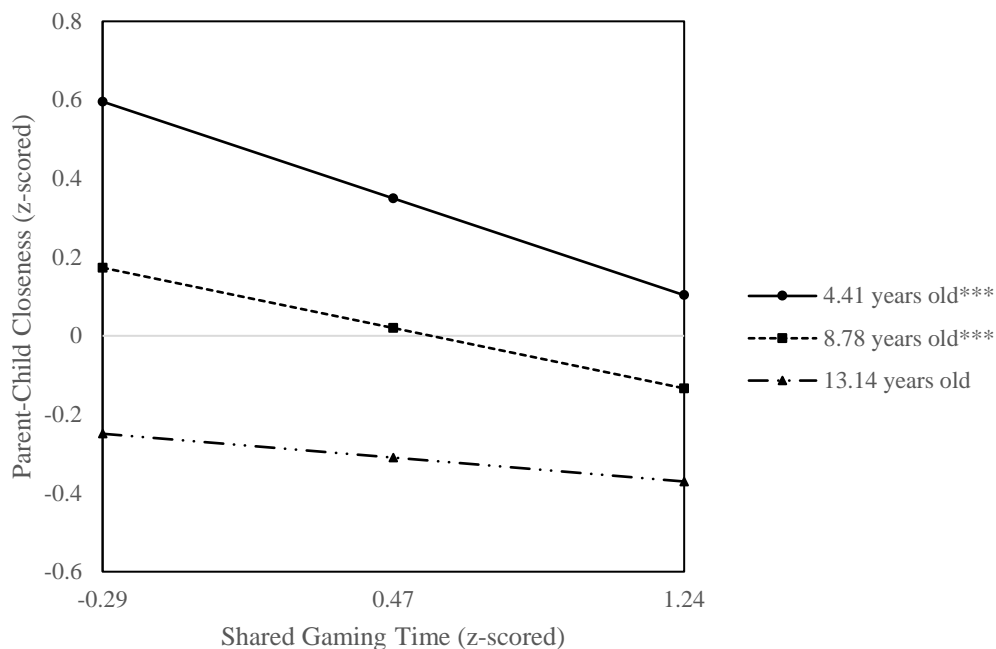


Figure 15 Interaction between shared game time and child age predicting parent-child closeness. \*  $p < .05$ .

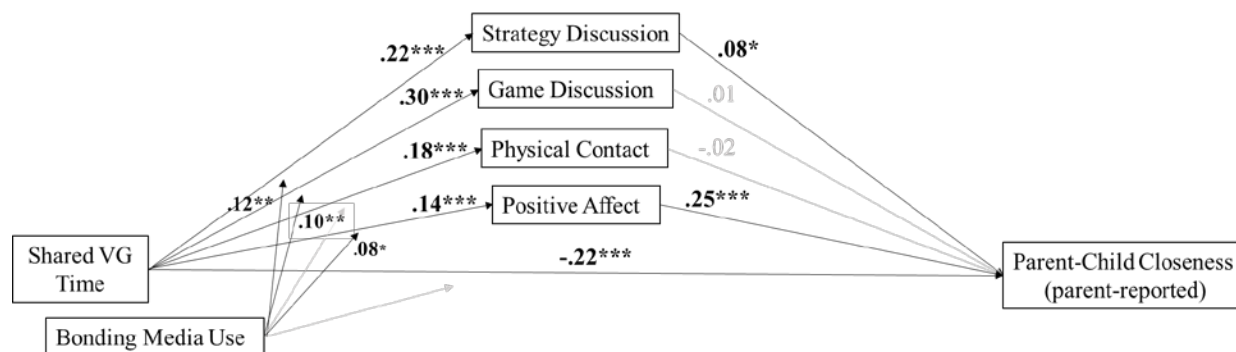


Figure 16 Path diagram for shared video game time and parent-child closeness, by bonding media use. Non-significant paths and coefficients are grayed for clarity. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

## Appendix A: Additional Tables

Table A1. Bivariate Correlations between Covariates and Predictors

	1	2	3	4	5	6	7	8	9	10	11
1. Child age											
2. Child gender (0 M, 1 F)	-.003										
3. Parent age	.591**	.017									
4. Parent gender (0 M, 1 F)	.020	.093**	-.029								
5. Parent education	.007	.036	.172**	-.081**							
6. Shared non-media time (log)	-.299**	.008	-.202**	.028	-.082**						
7. Relational media use	.081**	.008	-.012	.020	-.009	.093**					
8. Number of kids	.199**	-.008	.233**	.081**	-.022	-.062*	.020				
9. Ease of separate viewing	.380**	.025	.180**	.053*	-.117**	-.066**	.255**	.104**			
10. Number of bedroom devices	.393**	-.020	.135**	-.022	-.136**	-.120**	.079**	.061*	.414**		
11. Shared TV (log)	-.142**	-.008	-.159**	.014	-.162**	.393**	.221**	-.062*	.101**	.146**	
12. Shared VG (log)	-.090**	-.119**	-.213**	-.196**	-.152**	.209**	.193**	-.052*	.133**	.219**	.412**

Note. \*p<.05, \*\*p<.01.

Table A2. Bivariate Correlations between Covariates and Television Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Child age														
2. Child gender (0 M, 1 F)	-.003													
3. Parent age	.591**	.017												
4. Parent gender (0 M, 1 F)	.020	.093**	-.029											
5. Parent education	.007	.036	.172**	-.081**										
6. Shared non-media time (log)	-.299**	.008	-.202**	.028	-.082**									
7. Relational media use	.081**	.008	-.012	.020	-.009	.093**								
8. Number of kids	.199**	-.008	.233**	.081**	-.022	-.062*	.020							
9. Ease of separate viewing	.380**	.025	.180**	.053*	-.117**	-.066**	.255**	.104**						
10. Number of bedroom devices	.393**	-.020	.135**	-.022	-.136**	-.120**	.079**	.061*	.414**					
11. Shared TV (log)	-.142**	-.008	-.159**	.014	-.162**	.393**	.221**	-.062*	.101**	.146**				
12. Contact TV	-.619**	.122**	-.382**	.096**	.044	.273**	.094**	-.134**	-.224**	-.226**	.171**			
13. Positive affect TV	.136**	.013	.064*	.146**	-.024	.122**	.266**	-.002	.220**	.053*	.094**	.044		
14. Active Mediation	-.213**	.019	-.180**	.028	-.029	.247**	.268**	-.064*	-.037	-.084**	.167**	.355**	.213**	
15. General Discussion	.098**	.027	.027	.145**	-.020	.177**	.309**	-.008	.178**	.008	.110**	.141**	.345**	.579**

Note. \*p&lt;.05, \*\*p&lt;.01.

Table A3. Bivariate Correlations between Covariates and Video Game Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Child age														
2. Child gender (0 M, 1 F)	-.003													
3. Parent age	.591**	.017												
4. Parent gender (0 M, 1 F)	.020	.093**	-.029											
5. Parent education	.007	.036	.172**	-.081**										
6. Shared non-media time (log)	-.299**	.008	-.202**	.028	-.082**									
7. Relational media use	.081**	.008	-.012	.020	-.009	.093**								
8. Number of kids	.199**	-.008	.233**	.081**	-.022	-.062*	.020							
9. Ease of separate viewing	.380**	.025	.180**	.053*	-.117**	-.066**	.255**	.104**						
10. Number of bedroom devices	.393**	-.020	.135**	-.022	-.136**	-.120**	.079**	.061*	.414**					
11. Shared VG (log)	-.090**	-.119**	-.213**	-.196**	-.152**	.209**	.193**	-.052*	.133**	.219**				
12. Contact VG	-.472**	.077*	-.277**	.069*	.038	.161**	.149**	-.098**	-.098**	-.097**	.189**			
13. Positive affect VG	.100**	.052	.041	.047	-.086**	.129**	.281**	.001	.271**	.047	.169**	.092**		
14. Strategy discussion	-.003	.021	-.061*	.000	-.025	.133**	.310**	.036	.155**	-.025	.239**	.210**	.300**	
15. Game discussion	-.127**	-.016	-.148**	-.018	.002	.124**	.307**	-.032	.063*	-.001	.292**	.419**	.260**	.514**

Note. \*p&lt;.05, \*\*p&lt;.01.

Table A4. Bivariate Correlations between Covariates and Outcome Measures

	1	2	3	4	5	6	7	8	9	10	11
1. Child age											
2. Child gender (0 M, 1 F)	-.003										
3. Parent age	.591**	.017									
4. Parent gender (0 M, 1 F)	.020	.093**	-.029								
5. Parent education	.007	.036	.172**	-.081**							
6. Shared non-media time (log)	-.299**	.008	-.202**	.028	-.082**						
7. Relational media use	.081**	.008	-.012	.020	-.009	.093**					
8. Number of kids	.199**	-.008	.233**	.081**	-.022	-.062*	.020				
9. Ease of separate viewing	.380**	.025	.180**	.053*	-.117**	-.066**	.255**	.104**			
10. Number of bedroom devices	.393**	-.020	.135**	-.022	-.136**	-.120**	.079**	.061*	.414**		
11. Child disclosure	-.046	.129**	.018	.189**	.001	.211**	.184**	.042	.097**	-.034	
12. Closeness	-.261**	.107**	-.092**	.229**	-.004	.273**	.161**	-.041	.023	-.148**	.528**

Note. \*p<.05, \*\*p<.01.

Table A5. Bivariate Correlations between Mediators and Outcome Measures

	1	2	3	4	5	6	7	8	9	10	11
1. Shared TV (log)											
2. Contact TV	.171**										
3. Positive affect TV	.094**	.044									
4. Active Mediation	.167**	.355**	.213**								
5. General Discussion	.110**	.141**	.345**	.579**							
6. Shared VG (log)	.412**	.119**	.028	.104**	.046						
7. Contact VG	.152**	.775**	.022	.308**	.164**	.189**					
8. Positive affect VG	.077**	.019	.646**	.234**	.337**	.169**	.092**				
9. Strategy discussion	.113**	.114**	.222**	.375**	.364**	.239**	.210**	.300**			
10. Game discussion	.148**	.286**	.174**	.480**	.414**	.292**	.419**	.260**	.514**		
11. Child disclosure	.083**	.124**	.250**	.236**	.302**	.009	.046	.262**	.201**	.098**	
12. Closeness	.119**	.310**	.315**	.282**	.264**	-.055*	.171**	.302**	.187**	.135**	.528**

Note. \*p<.05, \*\*p<.01.

Table A6. Promax-Rotated Factor Solution for Discussion During Shared TV/Movies<sup>a</sup>

How often do you...	Factor	
	Active Mediation	General Talk
Point out why some things actors/characters do are <b>bad</b> <sup>1</sup>	.953	-.101
Point out why some things actors/characters do are <b>good</b> <sup>1</sup>	.937	-.051
Point out why some things actors/characters do are <b>bad</b> <sup>2</sup>	.823	-.029
Point out why some things actors/characters do are <b>good</b> <sup>2</sup>	.773	.083
Try to help your child <b>understand</b> what s/he sees on TV <sup>1</sup>	.698	.108
Try to help your child <b>understand</b> what s/he sees on TV <sup>2</sup>	.538	.207
<b>Talk</b> about what you are watching (e.g., talk about the actors/characters/story) <sup>2</sup>	-.133	.871
Talk about <b>topics</b> related to what you see on the screen (e.g., dating, current events) <sup>2</sup>	.009	.752
<b>Talk</b> about what you are watching (e.g., talk about the actors/characters/story) <sup>1</sup>	.108	.732
Talk about <b>topics</b> related to what you see on the screen (e.g., dating, current events) <sup>1</sup>	.144	.668
Variance Explained	57%	14%
Alphas	.920	.857

a. Extraction Method: Maximum Likelihood; 1. Asked in reference to watching TV/movies in general with target child; 2. Asked in reference to watching a specific shared show with target child.

Table A7. Promax-Rotated Factor Solution for Discussion During Shared Video Game Play<sup>a</sup>

How often do you...	Factor	
	Discussion	Strategy
Discuss how game <b>themes</b> relate to the child's life <sup>2</sup>	.91	-.15
Encourage your child to think about a <b>topic</b> introduced in the game <sup>2</sup>	.89	-.02
Discuss how game <b>themes</b> relate to the child's life <sup>1</sup>	.86	-.05
Encourage your child to think about a <b>topic</b> introduced in the game <sup>1</sup>	.84	.06
Discuss <b>game plot</b> or themes <sup>2</sup>	.66	.15
Discuss <b>game plot</b> or themes <sup>1</sup>	.63	.24
Discuss <b>strategies</b> for winning <sup>1</sup>	-.04	.88
Discuss <b>strategies</b> for winning <sup>2</sup>	.00	.84
Variance Explained	59%	11%
Alpha	.926	r=.73

a. Extraction Method: Maximum Likelihood; 1. Asked in reference to playing video games in general with target child; 2. Asked in reference to playing a specific shared video game with target child.

Table A8. Descriptive Statistics

	Min	Max	Mean	Std. Dev	Skewness
Parent age (in years)	18	75	35.64	8.04	.61
Child age (in years)	3	17	8.90	4.63	.31
<b>Home Media Environment</b>					
Number of home devices	1	59	10.35	4.64	1.41
Number of bedroom devices	0	32	1.98	2.63	4.11
Ease of separate viewing	1	5	3.77	1.03	-.57
<b>Shared Media Time</b>					
Shared TV (hrs/wk)	0	85	10.72	7.80	2.26
Shared TV (hrs/wk – log transformed)	0	1.93	.98	.28	-.56
Shared games (hrs/wk)	0	44	3.48	4.60	2.68
Shared games (hrs/wk – log transformed)	0	1.65	.47	.39	.27
<b>Mediators</b>					
Affect TV	1.00	7	6.10	.90	-1.25
Affect Games	1.00	7	6.02	.99	-1.20
Active TV Mediation	1.00	5	3.54	.86	-.17
Discussion TV	1.00	5	3.70	.76	-.19
Video Game Active Mediation	1.00	5	3.07	1.06	-.16
Video Game Discussion	1.00	5	2.92	.95	.08
Video Game Strategy Discussion	1.00	5	3.66	.95	-.60
Contact TV	1.00	5	2.64	.98	.01
Contact Games	1.00	5	2.43	1.04	.30
<b>Outcomes</b>					
Disclosure from child	1.00	5	3.88	.73	-.56
Closeness to child	1.00	5	4.34	.69	-1.24
Closeness to child (transformed)	.00	7	3.89	2.64	-.22
<b>Moderator</b>					
Bonding Media Use	1.00	5	3.55	.81	-.20

Table A9. Frequency of Bonding Media Use Behaviors

How often do you use media to:	Never	Rarely	Occasionally	A moderate amount	A great deal
Help the family relax together	1%	4%	23%	44%	29%
Bond with a family member	2%	8%	31%	37%	21%
Increase family solidarity	6%	16%	36%	29%	13%
Provide common ground with a family member	5%	13%	39%	30%	13%

## Appendix B: Questionnaire

### Final Parental Shared Media Questionnaire

#### Screening Questions

Q1 The following questions will help to determine whether you are eligible to participate in this survey. Please answer the following questions:

Q2 Do you own a cell phone?

- Yes (1)
- No (0)

Q3 In which of the following categories do you place yourself?

- Female (1)
- Male (0)
- Other (2)

Q4 Are you an active Twitter user (composing at least 1 tweet per day)?

- Yes (1)
- No (0)

Q5 Do you have a child that is 3-17 years old?

- Yes (1)
- No (0)

Answer If Do you have a child that is 3-17 years old? Yes Is Selected

Q67 Thinking of your child with the most recent birthday (who is between 3-17), which age range includes this child's age?

- 3 - 5 (1)
- 6 - 11 (2)
- 12 - 17 (3)

Q7 Please copy and paste your worker ID below. If you don't know your ID, please click here to open a new window and log into your MTurk account. The worker ID is located under the "Your Account" tab on the MTurk dashboard (see image below for an example). Please do not exit out of this survey or the original survey that you started on MTurk.

Q8 Worker ID:

Q9 WORKER ID SAMPLE WAS HERE

CONSENT FORM WAS HERE

Q12 In consideration of all of the above, I give my consent to participate in this research study (Please type "yes" in the box below if you consent).

Q6 How many children do you have?

Q13 Again, thinking of your child with the most recent birthday (who is between 3-17), please tell me this child's first initial. I will only use the name throughout the survey to help focus your responses on that child only.

Q66 How old, in years, is CHILD NAME?

- 3 (3)
- 4 (4)
- 5 (5)
- 6 (6)
- 7 (7)
- 8 (8)
- 9 (9)
- 10 (10)
- 11 (11)
- 12 (12)
- 13 (13)
- 14 (14)
- 15 (15)
- 16 (16)
- 17 (17)

Q15 Which category best describes CHILD NAME?

- Male (1)
- Female (2)
- Other (3)

## Outcome Measures

Q16 Next, I'd like to ask you more specific questions about CHILD NAME.

Q17 Children differ in how much they talk with parents about various things. How often does CHILD NAME do each of the following:

	Not Applicable (9)	Never (1)	Rarely (2)	Sometimes (3)	Often (4)	Very Often (5)
talk at home about how he/she is doing in different subjects in school? (1)						
tell you about his/her friends (6)						
tell you how school was when he/she gets home? (2)						
keep a lot of secrets from you about what she/he does during his/her free time? (3)						
hide a lot from you about what he/she does during nights and weekends? (4)						
If Which category best describes CHILD NAME? Female Is Selected						
If your child goes out at night, when she gets home, does she tell you what she did that evening? (5)						
If Which category best describes CHILD NAME? Male Is Selected						
If your child goes out at night, when he gets home, does he tell you what he did that evening? (11)						
If Which category best describes CHILD NAME? Other Is Selected						
If your child goes out at night, when they get home, do they tell you what they did that evening? (12)						

Q18 Please indicate how much each statement applies to your relationship with CHILD NAME.

	Not at all (1)	(2)	(3)	(4)	Very well (5)
I share an affectionate, warm relationship with my child. (1)					
If upset, my child will seek comfort from me. (3)					
My child values his/her relationship with me. (4)					
When I praise my child, she/he beams with pride. (2)					

My child spontaneously shares information about him/herself. (6)					
It is easy to be in tune with what my child is feeling. (7)					
My child openly shares his/her feelings and experiences with me. (5)					

### Shared Time

Q20 Now I'd like to ask you about different ways you and CHILD NAME spend time together. It is possible that other children or family members may be present as well. Please think about this school year. About how often have you and CHILD NAME done the following TOGETHER?

	Never (1)	Once a month (2)	2-3 times a month (3)	Once a week (4)	A few times a week (5)	Once a day (6)	More than once a day (7)
Participate in leisure activities (e.g., play sports together, do a hobby together, play together) (1)							
Participate in religious activities (e.g., attend service, prayers) (2)							
Perform household chores together (3)							
Eat together (4)							

Q80 Now, in terms of time spent in these various activities, how many hours per week would you say you and CHILD NAME spend doing the following TOGETHER?

	Hours Per Week (1)
Participate in leisure activities (e.g., play sports together, do a hobby together, play together) (1)	
Participate in religious activities (e.g., attend service, prayers) (2)	
Perform household chores together (3)	
Eat together (4)	

Q21 Thinking again about this school year, normally, how often do you do the following WITH CHILD NAME?

	Never (0)	Once a Month (1)	2-3 Times a Month (2)	Once a Week (3)	A few times a week (4)	Once a Day (5)	More than once a day (6)
talk with your child on the phone (6)							

text back & forth with your child (1)							
email back & forth with your child (2)							
watch TV/movies with your child at home (4)							
play video games with your child at home (5)							

### Television/Movies Section

Q22 Now I would like to ask you more specific questions about the time you spend watching television/movies at home with CHILD NAME. It is possible that other children or family members may be present as well, however, please think about typical occasions when you and CHILD NAME watch together at home.

Q23 Please list the 3 television shows you watch the most with CHILD NAME. If you don't know the name of the show, please briefly describe the show. List them below in order of most watched to least watched show WITH CHILD NAME.

TV show watched most often together (1)

TV show watched second most often together (2)

TV show watched third most often together (3)

Q24 To the best of your ability, please list the last 3 movies you watched at home with CHILD NAME. If you don't know the name of the movie, please briefly describe the movie plot and main character.

Movie watched most recently together (1)

Second to last movie watched together (2)

Third to last movie watched together (3)

Q81 About how many hours do you spend watching television or movies with CHILD NAME each day of the week?

\_\_\_\_\_ Monday (1)

\_\_\_\_\_ Tuesday (2)

\_\_\_\_\_ Wednesday (3)

\_\_\_\_\_ Thursday (4)

\_\_\_\_\_ Friday (5)

\_\_\_\_\_ Saturday (6)

\_\_\_\_\_ Sunday (7)

Q25 When you watch MEDIA TITLE with CHILD NAME, how do you usually feel?

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
Unhappy:Happy (1)							
Irritable:Cheerful (2)							
Angry:Friendly (3)							
Tense:Relaxed (4)							
Frustrated:Calm (5)							
Bored:Excited (6)							
Negative:Positive (7)							

Q82 When you watch MEDIA TITLE with CHILD NAME, what kind of device are you most often using to watch?

Television set (1)

Tablet (5)

Laptop Computer (2)

Desktop Computer (3)

Smart Phone (4)

Other, please specify: (6) \_\_\_\_\_

Q98 How about when you are watching TV/movies in general with CHILD NAME at home, how do you usually feel?

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
Unhappy:Happy (1)							
Irritable:Cheerful (2)							
Angry:Friendly (3)							
Tense:Relaxed (4)							
Frustrated:Calm (5)							
Bored:Excited (6)							
Negative:Positive (7)							

Q83 The next set of questions first asks about what happens when you watch a particular show with CHILD NAME. Sometimes the experience is different based on the type of show you are watching; therefore, you will ALSO be asked about when you watch television/movies in

general. For those questions, please think about the time you spend watching TV/movies with CHILD NAME regardless of the show/movie.

Q26 When you watch MEDIA TITLE with CHILD NAME, typically, how often do you:

	Never (1)	Almost never (2)	Occasionally (3)	Almost every time (4)	Every Time (5)
talk about what you are watching (e.g., talk about the actors/characters/story) (1)					
talk about topics related to what you see on the screen (e.g., dating, current events) (2)					
talk about topics NOT related to what you see on the screen (e.g., a test in school) (7)					
try to help your child understand what s/he sees on TV (4)					
point out why some things actors/characters do are good (5)					
point out why some things actors/characters do are bad (6)					

Q27 When you watch MEDIA TITLE with CHILD NAME, typically, how often do you:

	Never (1)	Almost never (2)	Occasionally (3)	Almost every time (4)	Every time (5)
cuddle together (1)					
sustain physical contact (e.g., sitting with feet touching) (2)					
high five one another (3)					
hold hands (5)					
have your child on your lap (7)					

Q99 Now, please think about the time you spend watching TV/movies with CHILD NAME regardless of the show/movie. In general, when you are watching TV/movies with CHILD NAME at home, how often do you:

	Never (1)	Almost never (2)	Occasionally (3)	Almost every time (4)	Every Time (5)
talk about what you are watching (e.g., talk about the actors/characters/story) (1)					

talk about topics related to what you see on the screen (e.g., dating, current events) (2)					
talk about topics NOT related to what you see on the screen (e.g., a test in school) (7)					
try to help your child understand what s/he sees on TV (4)					
point out why some things actors/characters do are good (5)					
point out why some things actors/characters do are bad (6)					

Q100 In general, while you are watching TV/movies with CHILD NAME at home, how often do you:

	Never (1)	Almost never (2)	Occasionally (3)	Almost every time (4)	Every time (5)
cuddle together (1)					
sustain physical contact (e.g., sitting with feet touching) (2)					
high five one another (3)					
hold hands (5)					
have your child on your lap (7)					

### Video Game Section

Q29 Now I would like to ask you more specific questions about the time you spend playing video games at home with CHILD NAME. Once again, it is possible that other children or family members may be present as well, however, please think about typical occasions when you and CHILD NAME play video games together at home.

Q31 Please list the 3 video games you play the most with CHILD NAME. If you don't know the name of the game, please briefly describe the game. List them in order below from most played to least played with CHILD NAME.

Game played most often together (1)

Game played second most often together (2)

Game played third most often together (3)

Q30 What kind of system do you use to play video games with CHILD NAME at home? (Check all that apply)

Gaming Console (e.g., Xbox, Wii, Playstation) (1)

Tablet (e.g., iPad, Leap Frog, Nabi) (2)

Smart Phone (3)

Computer (e.g., desktop or laptop) (4)

Other, please specify (5) \_\_\_\_\_

Q63 About how many hours do you spend playing video games with CHILD NAME each day of the week?

\_\_\_\_\_ Monday (1)

\_\_\_\_\_ Tuesday (2)

\_\_\_\_\_ Wednesday (3)

\_\_\_\_\_ Thursday (4)

\_\_\_\_\_ Friday (5)

\_\_\_\_\_ Saturday (6)

\_\_\_\_\_ Sunday (7)

Q64 The next set of questions first asks about what happens when you play a particular game with CHILD NAME. Sometimes the experience is different based on the type of game you are playing; therefore, you will ALSO be asked about when you play video games in general. For those questions, please think about the time you spend playing video games with CHILD NAME regardless of the specific game.

Q32 When you play MEDIA TITLE with CHILD NAME, how do you usually feel?

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
Unhappy:Happy (1)							
Irritable:Cheerful (2)							
Angry:Friendly (3)							
Tense:Relaxed (4)							
Frustrated:Calm (5)							
Bored:Excited (6)							
Negative:Positive (7)							

Q33 When you play MEDIA TITLE with CHILD NAME, typically, how often do you:

	Never (1)	Almost never (2)	Occasionally (3)	Almost every time (4)	Every Time (5)
discuss game plot or themes (1)					
encourage your child to think about a topic introduced in the game (2)					
discuss how game themes relate to the child's life (3)					
discuss strategies for winning (4)					
try to help your child understand what s/he sees in the game (6)					
point out why some things characters do are good (7)					
point out why some things characters do are bad (8)					

Q34 When you typically play MEDIA TITLE with CHILD NAME, how often do you

	Never (1)	Almost never (2)	Occasionally (3)	Almost every time (4)	Every time (5)
cuddle together (1)					
sustain physical contact (e.g., sitting next to one another with legs touching) (2)					
high five one another (3)					
hug one another (4)					

Q102 Again, please think more generally now. For these next 3 questions, please think about the time you spend playing video games with CHILD NAME regardless of the specific game.

Q105 In general, when you are playing video games with CHILD NAME, how do you usually feel?

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
Unhappy:Happy (1)							
Irritable:Cheerful (2)							
Angry:Friendly (3)							
Tense:Relaxed (4)							
Frustrated:Calm (5)							
Bored:Excited (6)							
Negative:Positive (7)							

Q106 In general, when you are playing video games with CHILD NAME, how often do you:

	Never (1)	Almost never (2)	Occasionally (3)	Almost every time (4)	Every Time (5)
discuss game plot or themes (1)					
encourage your child to think about a topic introduced in the game (2)					
discuss how game themes relate to the child's life (3)					
discuss strategies for winning (4)					
try to help your child understand what s/he sees in the game (6)					
point out why some things characters do are good (7)					
point out why some things characters do are bad (8)					

Q107 In general, when you are playing video games with CHILD NAME, how often do you

	Never (1)	Almost never (2)	Occasionally (3)	Almost every time (4)	Every time (5)
cuddle together (1)					
sustain physical contact (e.g., sitting next to one another with legs touching) (2)					
high five one another (3)					
hug one another (4)					

### Media Environment

Q36 Homes vary in the number and types of devices available to family members. Now I'd like to ask you some questions about your home media environment.

Q65 How many of the following items are there in your home? How many are in CHILD NAME's bedroom?

How many of the following do you have in the home and in CHILD NAME'S bedroom?

TVs (1)

DVD players/VCRs (2)

Computers (include desktops and laptops) (4)

Tablets (e.g., Kindle, iPad, Leapster) (5)

Video game consoles (e.g., Xbox, Playstation, Wii) (6)

Q38 The ability for children to watch television separate from their parents differs in households for various reasons. Thinking about your household and CHILD NAME, would you say the following things make it easy or difficult for CHILD NAME to watch television/movies separate from you?

	Extremely difficult (1)	(2)	(3)	(4)	Extremely easy (5)
The rules in the house (4)					
CHILD NAME's knowledge or ability to work the television on his/her own (1)					
The number of separate devices in the home (e.g., the number of televisions) (2)					
The availability of separate rooms to use to watch television/movies (3)					
Other, please specify: (8)					

Q39 Does CHILD NAME have his/her own room?

Yes (1)

No (0)

### Bonding Media Use

Q40 In this next set of items, the term "media" refers to entertainment media, meaning television or video games. The term "use" can mean the television or video game content or the act of watching TV or playing video games. How often do you use media:

	Never (1)	Rarely (2)	Occasionally (3)	A moderate amount (4)	A great deal (5)
to enjoy family traditions (e.g., watch a certain movie on holidays or birthdays)? (1)					
to reward your children for something positive (e.g good behavior, grades, performance)? (2)					
to help your family relax together? (6)					
to bond with a family member? (4)					
to punish your child (e.g., take away screen time as punishment)? (5)					

to provide common ground with a family member? (3)					
to increase family solidarity? (7)					
to keep an eye on your child (e.g., know what he/she is doing or is interested in) (10)					
to know more about what is happening in your child's life? (9)					

## Demographics

Q41 Finally, I would like to ask you some background questions. These help describe the range of parents in the sample.

Q42 Which of the following describes your racial/ethnic background?

- White or Caucasian (1)
- Black or African American (2)
- Hispanic/Latino (3)
- Native American or Alaska Native (4)
- Asian (5)
- Native Hawaiian or Pacific Islander (6)
- Mixed race (7)
- Other (8) \_\_\_\_\_
- Prefer not to answer (99)

Q43 How old are you (in years)?

Q44 What is the highest level of education you have completed?

- Less than high school (1)
- High school graduate (or equivalent) (2)
- Some college (3)
- Associate's degree (4)
- Bachelor's degree (5)

Master's degree (6)

Professional school degree (7)

Doctorate degree (8)

Q45 Please think of a memorable time in which you and CHILD NAME watched television or a movie or played a video game together. Describe what happened and CHILD NAME's reactions to this time together.

Q47 Thank you for taking the time to complete this survey. Once you click submit, you will receive a completion code. Please copy and paste this code on your open mTurk page to receive credit. We appreciate your time and attention!