Psychol Stud (January–March 2021) 66(1):73–84
https://doi.org/10.1007/s12646-021-00596-w

RESEARCH IN PROGRESS

From Risk to Advantage: The Role of Active Mediation in the Viewing of Big Brother by Children and Pre-adolescents

Gila Cohen Zilka[1] · Tohar Dolev[2] · Tal Ben-David[2] · Sigal Zilcha-Mano[2]

Received: 26 March 2020 / Accepted: 11 January 2021 / Published online: 14 March 2021

Abstract The content to which children are exposed by reality television shows is of great concern for parents and educators, especially because of excessive amounts of relational aggression. Parental mediation is suggested as an effective approach for reducing the risk of this exposure and to derive learning value. In two studies, we used qualitative and quantitative methods to examine the effects of different types of mediation and children's preferences with regard to who they liked to watch TV with on children's attitudes and perceptions about characters that appear in reality shows and of their acts. Findings from both studies revealed that more active parental mediation leads to fewer adverse reactions and more desirable attitudes towards the characters. The current study suggests that active parental mediation during reality television viewing may transform the risks stemming from watching reality shows into important advantages for children's social development.

✉ Gila Cohen Zilka
gila.zilka@gmail.com

Tohar Dolev
tohardolev@gmail.com

Tal Ben-David
talbenda23@gmail.com

Sigal Zilcha-Mano
sigalzil@gmail.com

[1] Achva Academic College, Bar-Ilan University, Ramat Gan, Israel

[2] The Department of Psychology, University of Haifa, Mount Carmel, 31905 Haifa, Israel

Keywords Reality show · Attitudes · Relational aggression · Parental mediation · Active mediation · Parental guidance

Introduction

Parents, educators, and health-care providers have long emphasized the negative impact of television viewing on children and teenagers (e.g., Lopez et al., 2006), and their concerns have been growing steadily in recent years (Arifinda & Hastuti, 2016). Concerns have focused both on the viewing itself and on its content. Television viewing time has been associated with fewer opportunities for children to engage in activities that are important for their development, such as reading, physical activity, and hobbies (as noted by Centers for Disease Control and Prevention, 2009). Additionally, the content that children are being exposed to is often considered to be inappropriate and harmful to their development. While positive effects of television on children's social interactions when watching prosocial content were revealed (Mares & Woodward, 2005), research suggests that viewing physical aggression in the media is a risk factor for the development of increased aggressive behavior, hostility, and anger (e.g., Anderson et al., 2010; Eron, 1963; Greitemeyer & Mügge, 2014; Zilka & Romi, 2018). For example, a study found that viewing violence on television by children predicted their increased aggressive behavior in school (Martins & Wilson, 2012).

Children and Reality Television

These concerns regarding the negative impact of television watching have become more pronounced in recent years in

light of the growing popularity of reality shows, a genre of programming that exposes real people in real live situations (Coyne et al., 2010). Reality programs are now making most prime-time programs and topping the television ratings, for example, Survivor, Big Brother, and America's Got Talent (The Neilson Company, 2013). While the actions of the characters are somewhat influenced by elaborate sets, locations, and challenges, and producers create these constraints to heighten drama (Rose, 2008). But while each reality show is unique they are all designed to be unscripted (the characters act without a script they need to memorize).

Reality television was found to exhibit aggression, and regular exposure to reality television was related to more aggression and social aggression of the viewers (Reysen & Katzarska-Miller, 2017; Ward & Carlson, 2013). The literature today differentiates between physical aggression and relational aggression. Physical aggression refers to a form of aggression that can be defined as the intent to physically harm another person who does not wish to be harmed (Anderson et al., 2010). Reality programs do not contain more physical aggression than other genres, likely because they must be "real," and extreme physical aggression would have more ramifications than in the case of fictional characters (Coyne et al., 2010). In recent years, the term "relational aggression" has been introduced to depict the kind of aggression that involves direct and indirect harm to relationships or to the social environment, and includes gossiping, spreading rumors, social exclusion, and relational manipulation (Archer & Coyne, 2005; Crick et al., 2006; Nelson et al., 2008). Relational aggression is extensively present in reality shows, and it is seen at higher rates than in scripted programming (Coyne et al., 2010). Several studies indicate that exposure to televised relational aggression predicts higher levels of relational aggression and internalizing problems of viewers, including children (Coyne & Archer, 2005; Coyne et al., 2016; Linder & Gentile, 2009; Marshall et al., 2015). It is therefore important to better find out what can help decrease the negative effect of relational aggression on children.

Reality television content raises even more concerns about negative impact it has on children compared to adults, as research has demonstrated that many children and teenagers imitate what they see on television (Huesmann et al., 2003; Linder & Gentile, 2009). Although viewers' identification with the characters in the show depends not only on its realism and the portrayal of the characters but also on the viewers themselves, some research has shown that more realistic shows are more likely to be imitated and to increase aggression than more fictional shows are (Atkin, 1983; Donnerstein et al., 1994; Huesmann et al., 2003). Therefore, behaviors deemed to be realistic in a television program are more likely to be imitated than unrealistic behaviors (Atkin, 1983), and reality shows are more likely to be imitated (see Donnerstien et al., 1994).

Parental Mediation of Television Watching

To address the concerns regarding watching television and the risk of negative effects, in 2016 the American Academy of Pediatrics (AAP) issued recommendations suggesting that parents limit their children's total entertainment media time, turn off television and other devices when not in use, and monitor children's consumption of media content. Many children and teenagers in Europe (Jago et al., 2008) and in the United States (Anderson et al., 2009) exceed the recommended screen/entertainment media time (AAP, 2016), with the popularity of reality television exceeding that of any other genre (Neilson, 2013). Consequently, today many interventions are aimed at restricting children's television viewing through fostering restrictive mediation, which is one type of parental mediation (Bybee et al., 1982; Nathanson, 2001a, 2002; Collier et al., 2016). The term "parental mediation" acknowledges that parents actively engage in managing and regulating their children's television viewing experience (Nathanson, 1999). Three primary forms of parental mediation have been identified: restrictive mediation, active mediation, and co-viewing (Bybee et al., 1982; Nathanson, 1999, 2001a; Rasmussen, 2013; Valkenburg et al., 1999). Parental mediation can be justified by social learning theory, which states that children are highly perceptive of their parents' actions and may model their behaviors and attitudes toward media to conform to those of their parents (Bandura, 1977). All types of parental mediation can be consisted as a part of social learning and have the capacity to promote acceptance of positive as well as of negative behaviors presented in the media.

Restrictive mediation, a common mediation strategy, refers to the rules and regulations that parents enforce regarding children's television viewing by limiting the number of hours and the types of programs or channels children are allowed to watch (Bybee et al., 1982; Epstein et al., 2004). With restrictive mediation parents decrease children's overall viewing time and control content; yet, it was found to be related to an increase in imitated aggressive behavior (Nathanson, 2002; Vandewater et al., 2005). Parents face challenges while trying to adhere to the restrictive guidelines, as they may cause anger and conflicts between parents and children, thus contributing to stress in the family environment (Evans et al., 2011). Additional difficulties reported by parents in implementing these restrictions are a lack of safe alternatives to television (Dorey et al., 2009; Jordan et al.,

2006), replacement of television with other media (i.e., smartphones), or viewing TV at friends' homes (Marshall et al., 2004). Children, in turn, report difficulties in accepting the restrictions perceived as unfair and offensive, and because of these restrictions feel excluded in their interactions with their peers (Ito et al., 2010; Jordan et al., 2006). In light of these difficulties, parents and professionals may question the effectiveness of such restrictions.

Active mediation occurs when parents discuss with the children the content they see on television, comment on the actions of participants and characters in movies, explain that not everything on television is necessarily real, or put advertisement claims in proper perspective. In active mediation, through social learning, children can grasp how to consume media in a more critical way with exploration and clarification of media content, as exemplified by their parents (Bandura, 1977). It was found that when parents openly talk about violence seen on television, children and adolescents develop negative attitudes toward the show and aggressive characters (Rasmussen, 2013). By promoting discussion between parent and child, this type of mediation facilitates mentalization, and allows children to form an attitude toward another person's behavior and evaluate their own positions, intentions, and plans (Fonagy & Target, 1998). Active mediation was found less frequent than the other types of mediation, even though the authors believed it to be the most purposive, critical, and potentially effective approach to guidance (Bybee et al., 1982).

Co-viewing is a less active type of guidance, when parents sit with the children while they watch television, with little conversation. Through social learning of the children, co-viewing parents may send an implicit message of approval of media content consumed together with their children by their mere presence during the viewing of the content (Bandura, 1977). Research has shown that parents and children feel closer when viewing television together, and children learn more than when doing it by themselves (Dorr et al., 1989). Co-viewing has been found to increase children's and adolescents' aggressive behaviors and attitudes (Nathanson, 1999, 2001a). Bybee et al. (1982) found that co-viewing mediation appears to be the main type of guidance exercised by parents.

These three types of mediation have been consistently identified in various studies worldwide (Coyne, 2016; Valkenburg et al., 1999). Previous research has shown that children who are subject to restrictive or active mediation tend to experience more positive outcomes such as enhanced comprehension of the television show (Desmond et al., 1985). Restrictive mediation, however, may lead to negative outcomes (Collier et al., 2016; Nikken & Graaf, 2013), such as risky behavior (Sasson & Mesch, 2014). Co-viewing yielded mixed results. Messaris and Kerr (1984) found this type of mediation to be associated with a belief that TV characters are real, creating blurred boundaries between reality and fantasy. In a different study, co-viewing did not lead to better or worse outcomes than other types of parental mediation (Nikken & de Graaf, 2012). Studies focusing on reality television and mediation are scarce. In one study, active mediation was found to help children realize the difference between the reality television show and the actual world (Seon-Kyoung & Doohwang, 2010).

The effect of mediation was studied not only in the context of parental mediation but also in that of peer mediation. Children watching a show with their peers were found to experience increased enjoyment due to social interaction, and were influenced by their peer's reactions (Sasson & Mesch, 2014). Children watching television with peers were more likely to imitate what they saw on the show than were children watching alone (Sproull, 1973). Viewing with peers also leads children to develop greater acceptance of antisocial content and produced higher aggression levels than did watching alone or with parents (Nathanson, 2001b).

When children watch television alone, they were found to be more influenced by the content and see it less critically (Strasburger & Donnerstein, 1999). They tend to see more similarities between the program and their own life, and between the characters and their friends than do children watching with peers; they may also feel closeness to the characters as if those were their own friends (Busselle & Greenberg, 2000).

The present research sought to deepen the understanding of the role of children's company preferences for watching television and to compare the effects of different types of parental mediation and viewing company on children's perceptions of and reactions to a reality show and its characters. Given the fact that previous studies demonstrated that reality television is more relationally aggressive (Coyne, 2016), more commonly imitated (Atkin, 1983), and thus leads to greater concern, the current study focused on reality shows. Because mediation is perceived as a powerful tool in reducing the risks of television watching, in order to better understand the effects of viewing company and the types of parental mediation on children's experiences and attitudes toward reality shows, two complimentary studies were conducted. In the first study, we took a wider look of various company preferences (parental, peer and alone), examining the advantages and disadvantages of each option, and the resulting perception of the characters on the show by the children. We wanted to first look into different types of viewing company, not only parental, to have a better understanding of the effects of each type on the child's viewing experience. Because of the exploratory nature of the study, we used qualitative methods of inquiry first. In the second study, we wanted to

look into the mechanisms involved in mediation television watching. We focused on parental mediation as it was found to be most efficient. We systematically examined the patterns identified in the first study, this time using quantitative methods of inquiry and focusing on types of parental mediation that may lead to more positive outcomes. To create a stronger and broader understanding of the data, we used a multi-method methodology, which is likely to provide a more comprehensive view (Johnson et al., 2007).

Study 1: Qualitative Study

Study 1 focused on comparing viewing experiences of children who preferred a certain type of viewing company (with parents, peers, and alone) for watching a popular reality show. The study was aimed at exploring different mediation strategies and their perceived impact on the participants. It had two main aims: (1) To explore the impact of viewing company (parent, peer, alone) on children watching *Big Brother*, a popular television reality show, and (2) To compare the children's attitudes toward the characters in the television show by group.

Method

Participants

Home-based interviews were conducted with 18 Israeli children aged 8–18, with equal number of boys and girls. A large percentage of Israeli children are interested in the show and watch it frequently (Israeli Audience Research Board, 2013), and this age group was found to be the age range of youths watching the show worldwide, including America (The Neilson Company, 2013) and Israel (Israeli Audience Research Board, 2013). They were chosen to participate based on their television watching preferences to form equal-sized groups; a third of the children reported watching the show mainly with their parents, a third reported watching the show mainly with their peers, and a third reported watching the show mainly by themselves). Each group included the same number of boys and girls and similar distributions across ages. Sampling was based on a "snowball" approach, where children invited their friends who watched the show to take part in the study. Most of the participants watched the show on their television sets, and only 13.7% watched the show over the Internet (on a computer or a mobile device).

Big Brother

We examined our research questions in relation to one of the most watched reality shows in Israel, America, and other places around the world (Hill, 2002) that captured a major portion of public discussion among children: *Big Brother*. Big Brother began in Holland in 1999 and since then expanded internationally. The show has been on the air in America since 2000 and in Israel since 2008; it features a group of strangers living together in a large house, isolated from the outside world. Big Brother is known as one of the ultimate reality shows because it is voyeuristic and interactive (i.e., the audience decides who the winner is) (Hill, 2002). Like other reality shows that present real people in real-life situations, this show is perceived to facilitate identification with the characters (Roscoe, 2001) and therefore might cause children to imitate certain character's behaviors, including acts of relational aggression. Furthermore, the show often brings out extreme relational aggression in participants. Some episodes of the show are rated TV PG, which may include some inappropriate language, minor amounts of sexual content or suggestive dialogue, and violence. The context of the show is not designed specifically for children, and parental supervision is recommended. In a research conducted on a sample of more than 9,000 TV viewers aged four to 65, it was found that 28 percent of adults and 44 percent of children liked the Big Brother show (Hill, 2002).

Procedure

Individual semi-structured interviews were conducted with participants with their and their parents' consent (written and verbal). Interviews took place toward the end of the 2012 season of Big Brother at the participants' family residences, in a quiet room separated from the rest of the family. The interviews were conducted by the authors and lasted approximately three quarters of an hour. Interview questions focused on two key issues: (1) the company with whom the children watch the show, the nature of the interaction with the viewing company, and the advantages and disadvantages of watching in that company (or the lack thereof); (2) attitudes toward the characters of Big Brother: children were asked to describe the characters in the program in order to examine their interpretation of relational aggression; later they were asked to choose the character whom they viewed as having high relational aggression. The interviews were recorded, transcribed, and analyzed. The names of the participants were changed in the Results section to keep their anonymity.

Analysis Process

We analyzed the interviews using thematic analysis (Boyatzis, 1998; Braun & Clarke, 2006; Crabtree & Miller, 1992), which involves identifying themes in the data through a recursive process of careful reading and re-reading of the transcribed interviews. Based on Braun and Clarke (2006), our process included familiarizing ourselves with the narratives, generating initial codes, collating codes into potential themes, assembling the data relevant to each potential theme, and finally generating a "thematic map" for the analysis.

Results

Description of the Nature of the Interaction with Television Viewing Company

Parent-mediated group. Children who watched Big Brother with their parents revealed several themes: complex and realistic thinking, empathy, didactic explanations, emotional thinking, family security, and an educational value. They reported enjoyable discussions of the characters' actions with their parents and the *educational values* that viewing together produced. Specifically, they described lively discussions with their parents during which they analyzed the characters' thoughts, feelings, and behaviors. For example, Daniel, a 10-year-old boy, said: "I'd rather watch with my family. When we watch together, we talk about what is happening, the way people behave in the show, what they think, and how they feel about things."

The children stressed the benefits they received in forming more *complex and realistic thinking* about others' minds and motives. For example, Anna, a 15-year-old girl said, "There was a character that I loved at first, but then my mother told me things that I hadn't thought of before, and then I noticed how she solves her problems at the expense of others."

Children also discussed with their parents' alternative ways in which the characters may have responded to specific situations, as well as the hypothetical results of each response, thus building capacity for *empathy*. For example, Hannah, a 12-year-old girl said: "Together we try to understand why the characters act or speak as they did, and what they were feeling that makes them react in those ways." Other children also referred to *didactic* explanations by their parents about how people should act in social interactions. For example, Jacob, an 8-year-old boy said: "They (parents) explain things to me, like why the character's approach is wrong, or how she doesn't take things seriously and makes bad decisions and things like that."

The children also talked with their parents about how they would have felt if they were in those situations; and in this way children worked through their *emotions* in those situations. For example, Jonathan a 13-year-old boy said:

> I saw how he was hurt when they said that to him, I felt like him when the same thing happened to me at school…my mom was really interested in how I was feeling, and why it happened and what I can do next time, and it really helped me.

Some participants noted that watching in a *secure family environment* allowed them to freely express their thoughts and feelings, for example, Rachel, an 8-year-old girl said: "It's the most fun to watch with family because it's easy to say what you think without being laughed at afterwards, my friends sometimes laugh at me."

Peer-mediated group. Participants who watched Big Brother with their friends revealed the themes: joy and sharing thoughts and opinions. They highlighted the *jovial atmosphere*, which included telling jokes and laughing. Specifically, children compared their feelings about watching with peers to watching alone and felt that with peers it was more fun.

The interviewees described their viewing experience as including less deliberation about their thoughts. For example, Alex a 10-year-old boy said: "I don't like watching alone, it gets too serious." Rebecca, a 14-year-old girl, said: "We joke about the things that happen and don't take it too seriously."

The children also noted *exchanging and sharing of thoughts and opinions* with peers. For example, Ethan, an 8-year-old boy, said: "I'd rather watch the show with friends, because then they all say what they see and think, and then it's easier for me to understand the show." Additionally, children liked the feeling of being *part of a group* that shares similar opinions about specific characters; for example, Iris, an 18-year-old girl said: "Avivit [one of the characters] is bad. I'm not the only one who thinks so. All my friends think so too."

Watching alone. Participants who watched the television program alone revealed several themes: uninterrupted, focused, identification, without boundaries and without an external critical view. They emphasized the ability to *focus* and delve deeply into the program's personalities and events, without any disturbance or comments from others. Specifically, many noted that they preferred viewing the show alone, because they were *not interrupted* by other people's opinions and views about the characters. For example, Mathew, a 15-year-old boy: "My family and friends bother me. They start laughing, they say things about the show, and it really annoys me. I can't concentrate… I like watching alone and being focused on the show."

Many children in this group actively attempted to stay away from others (e.g., peers and parents) and from their *external critical point of view*. For example, Eliza, 12-year-old girl, said: "I always distance myself from friends and family who want to watch together. They don't focus on the show. They laugh and criticize the characters. As soon as the show starts, they ask me what happened before."

Some children in this group described the viewing experience, highlighting *identification* and *without boundaries,* as though they "were entering the program itself," talking with the characters, and identifying with their feelings. For example, Nicole, a 9-year-old girl, said: "When I watch alone it's almost like I'm inside the show. I talk to the characters that I like best, I tell them things that are happening behind their back. Sometimes I cry, sometimes I laugh." The interviewees also reported feeling like the characters were part of their real life. For example, Dan, a 17-year-old boy, said: "When I watch alone, It's like I'm right there."

Attitudes Toward the Big Brother Characters

In the second stage of the interviews, we examined how children's attitudes toward the characters and their interpretation of relational aggression differed based on the person with whom they watched the show. Differences between the three groups were evident.

Parent-mediated group. Children in the parent-mediated group revealed the following themes: moral judgment, showing identification, and criticism. Children in this group were more likely to use *moral judgment* and to *identify* and *criticize* the characters' social and interpersonal behaviors, in particular relational aggression. For example: "He doesn't act like a real friend;" "She really makes people feel bad;" "I think that the way they both acted in this situation was wrong;" "She always tells people's secrets to others." They also referred to more personality traits, for example, active, hopeless, rude, dishonest, easygoing, impolite, clever, and nice.

Peer-mediated group. Children in the peer-mediated group revealed the following themes: shared thoughts and opinions ("we"), combined criticism, and identification. Children in this group used more multifaceted descriptions, which combined *criticism* of the characters (which was also the dominant perspective in the parent-mediated group) and *identification* with them (which was the prevailing attitude in the watching alone group). Children in this group also used many expressions involving the word *"we"* ("We don't like him," "We all think that he will win,").

Watching alone group. Children who watched the show alone mentioned themes of identification and admiration. Children in this showed more *identification and admiration* of the characters in the show and less critical appraisal of them than did children in the parent-mediated group: "I'm exactly like him," "I feel exactly as she does." They described the characters as subjects for imitation, and did not relate much to relational aggression. The distinction between life in the show and outside it was murky; they viewed the show as reflecting the ways social interactions and behavior take place in real life. They used phrases such as: "I want to be his friend," and "I cried with her when she was upset."

General Summary of the Qualitative Study Findings

Using qualitative methods of inquiry, we found that watching the show in different company (parents, peers, alone) produced different experiences, in turn resulted in different attitudes toward the characters. Similar to what has been previously reported (Busselle & Greenberg, 2000; Strasburger & Donnerstein, 1999), children who watched the show alone reported a sense of being together with the characters, which resulted in identifying and admiring the characters. Children who watched the show with the mediation of their parents through social learning (Bandura, 1977) reported a process of acquiring life skills that resulted in a critical perspective as they were analyzing the characters' attributes and acts, and building a theory of mind perspective. These findings are consistent with studies showing that with parental mediation the children learn more from the content shown on television than other children, without such mediation (Nathanson & Cantor, 2000). This critical prospective also allows the children to learn and understand relational aggression and empathy (Nathanson, 1999). Children in the peer-mediated group described referring to the events on screen by laughing and sharing their thoughts (similarly to what was reported by Sasson & Mesch, 2014), which resulted in both criticism and identification with the characters.

This study examined the effects of the types of company that children experience while viewing television, but it did not explore the mechanisms involved. Parental mediation revealed benefits that can be used in an educational way, as opposed to peer mediation and watching alone, which had to do more with the child's preferences. In order to further the understanding of parental mediation, study 2 examined the types of parental mediation that may lead to positive outcomes.

Study 2: Quantitative Study

The second study had two main aims: (a) to broaden the qualitative findings and examine whether they can be replicated with quantitative methods; and (b) to take the

qualitative findings one step further by differentiating between diverse types of parental mediation and their effect on hours of TV watched. Study 2 used the same television program as study 1: *Big Brother*.

Hypotheses

1. The company in which the children view the show (parents, peers, alone) will result in different attitudes toward the *Big Brother* characters.
    a. Viewing in the company of parents and peers will be associated with more criticism than viewing alone.
    b. Viewing with peers and alone will be associated with greater admiration and identification than viewing with parents.
2. Different parental mediation (restrictive, active, and co-viewing) will result in different attitudes toward the *Big Brother* characters. Active mediation will be related to more criticism than are restrictive and co-viewing mediation.
3. Different types of parental mediations (restrictive, active, and co-viewing) will result in different amounts of television viewing time. Restricted mediation will be related to less time spent viewing television than are active and co-viewing mediation.

Method

Participants

The sample (n = 145; 87 girls, 58 boys) was drawn from three elementary schools and three high schools from different socio-demographic regions in Israel. Ages ranged from 8 to 18 (M = 13.07, SD = 2.66). Six of the children (4.2%) were 2nd and 3rd graders, 69 (49%) were 4th-6–h graders, 32 (22.7%) were 7th-9th graders, and 34 (24.9%) were 10th–12th graders, representing the relative ages among youth watching the reality show. One hundred and eight (76.1%) of the participants were born in Israel, 22 (15.4%) were born in the Commonwealth of Independent States, 3 (2.1%) were born in Europe or the US, and 9 (6.3%) were born in Ethiopia. The sample included 97 (69.8%) children whose parents were married, 33 (23.7%) children whose parents were divorced, and 9 children (6.4%) whose parents were single or widowed. Participants reported 3.99 (SD = 1.90) daily weekday television viewing hours, 4.41 (SD = 1.74) daily weekend television viewing hours, and 3.54 (SD = 1.91) weekly television viewing hours of *Big Brother*.

Procedure

Questionnaires were given to participants after they, their parents, and the school administration agreed that the children should participate in the study and consented to participate. Participants completed the questionnaire in a quiet classroom and were thanked for participating upon completion.

Instruments

Type of mediation questionnaire. The parental mediation questionnaire was developed based on Van den Bulck and Van den Bergh (2000; see also Bybee et al., 1982), and it included three parental mediation dimensions: restrictive mediation, active mediation, and co-viewing. For the purpose of this study, we added two more groups: viewing in the company of peers and viewing alone. The items in the questionnaires were scored on a 5-point Likert-type scale (Table 1).

The questions were answered twice: once with reference to television viewing habits in general and once with reference to *Big Brother* viewing habits. This enabled us to determine whether parental mediation habits regarding *Big Brother* were representative, and whether a distinction between them was justified. We found positive correlations between the general and Big Brother viewing habits: restrictive mediation ($r_{(141)} = 0.64$, $p < 0.01$), active mediation ($r_{(139)} = 0.63$, $p < 0.01$), co-viewing ($r_{(141)} = 0.63$, $p < 0.01$), social ($r_{(140)} = 0.77$, $p < 0.01$), and viewing alone ($r_{(139)} = 0.52$, $p < 0.01$). We therefore proceeded to combine each pair of mediation variables into a new television viewing mediation variable (reported in the Results section below).

Attitudes questionnaire. This questionnaire was developed based on study 1 data and on Block's (1995) Attitude Questionnaire. As a preparation for study 2, content analysis was performed on the interviewees' descriptions of the Big Brother characters in study 1. This analysis yielded four themes that represented four main attitude types: admiration, identification, criticism, and realism (perception of characters and their interactions as representing reality). Questionnaire items describing each type were created based on Block's questionnaire and on quotations from the interviewees. The items were reviewed by five undergraduate students. The questionnaire was factor analyzed using principal components analysis with oblimin rotation. The analysis yielded four factors (attitude types) which were included in the final version: admiration,

Table 1 Number of items and reliabilities for the mediation questionnaire subscales

Mediation type	General TV Viewing		*Big Brother*	
	# items	α -Cronbach	# items	α -Cronbach
Restrictive	5	.76	5	.81
Evaluative	5	.86	5	.86
Unfocused	5	.80	5	.82
Friends	6	.79	6	.82
Solo Viewing	1	–	1	–

identification, criticism, and realism. The items in the questionnaire were scored on a 5-point Likert-type scale.

The attitude questions were answered three times: once concerning attitudes about the show's characters in general, and two additional times examining attitudes toward two specific characters, Zvi and Yana. We selected these two characters for their different personalities. Zvi, a male participant, was mainly referred to as using a great deal of relational aggression and other socially undesirable behaviors; Yana, a female participant, was described as true to herself and non-violent. The choice was made based on questionnaire ratings of 15 undergraduate students who watched the show and were blind to the study, and on the interviews conducted in study 1. The undergraduate students were asked to rate all the dominant Big Brother characters on the extent to which they displayed aggression and relational aggression on a 7-point Likert scale. In both the questionnaires and interviews, Zvi received the highest score on relational aggression, and Yana the lowest. This enabled us to compare the effect of different types of parental mediation on relational aggression (Table 2).

Rosenberg Self-Esteem Scale (RSE; Rosenberg, 1965*).* Self-esteem was assessed using a 10-item self-report scale. Participants rated each item using a 4-point scale. Cronbach's alpha was high, 0.81.

Forms of Aggression Questionnaire (FOA; Verona et al., 2008*).* Aggressive tendencies were assessed on a 40-item self-report measure of engagement in various forms of aggression. Participants rated each item using a 5-point scale. In the present study, the physical aggression, verbal aggression, property aggression, and passive rational aggression subscales were used in the analyses. Cronbach's alpha of the subscales was high, 0.87–0.95.

In the final section of the battery of questionnaire, participants completed items regarding their general television viewing habits and Big Brother-specific viewing habits, and answered socio-demographic questions.

Results

Mediation Type and Children's Attitudes Toward Big Brother Characters

Because the division into groups was not random (i.e., type of mediation was not experimentally manipulated), we examined whether self-esteem level, aggressive tendencies, or any demographic variable (age, gender, viewing time) explained the findings. Partial Pearson correlations controlling for these variables were calculated and reported.

We conducted correlations between different types of parental mediation and company (e.g., restrictive, active, and focused parental mediation, peer, and watching alone), and children's attitudes, (e.g., children's levels of identification, enjoyment, criticism, and perception of realism regarding the characters). Active parental mediation was positively related to criticism. Parental co-viewing was positively related to all attitude factors: identification,

Table 2 Number of items and reliabilities for the attitudes questionnaire subscales

	All characters		zvi		Yana	
	# items	α -Cronbach	# items	α -Cronbach	# items	α-Cronbach
Admiration	4	.85	4	.87	4	.90
Identification	5	.81	5	.82	5	.88
Criticism	5	.77	5	.78	5	.84
Perception as real-life	6	.84	6	.84	6	.91

enjoyment, criticism, and realism. Peer mediation was positively related to identification, criticism, and realism. Finally, viewing alone was positively related to identification and realism (Table 3).

We next tested for associations between different types of parental mediation and company, and children's attitudes toward Zvi and Yana. As hypothesized, these two characters produced distinct patterns of findings. Viewing the show with active parental mediation was negatively related to positive perception ($r_{(135)}$ = -0.19, $p < 0.05$), and positively related to criticism ($r_{(135)}$ = 0.21, $p < 0.05$) of Zvi. Peer mediation was also positively related to criticism ($r_{(135)}$ = 0.23, $p < 0.01$) of Zvi. Finally, viewing television alone was positively related to admiration of Zvi ($r_{(135)}$ = 0.30, $p < 0.01$), identification with Zvi ($r_{(135)}$ = 0.22, $p < 0.01$), and a positive perception of Zvi ($r_{(135)}$ = 0.27, $p < 0.01$). Yana evoked non-significant correlations between the mediation variables and criticism toward her character. There was a positive association, however, between active mediation and attitudes toward Yana, specifically with admiration ($r_{(135)}$ = 0.24, $p < 0.01$), identification ($r_{(135)}$ = 0.20, $p < 0.01$), and positive perception ($r_{(135)}$ = 0.21, $p < 0.01$). Finally, there was a positive association between co-viewing and admiration of Yana ($r_{(135)}$ = 0.19, $p < 0.01$), and between peer mediation and identification with Yana ($r_{(135)}$ = 0.17, $p < 0.01$).

Associations Between Type of Mediation and Viewing Habits

None of the types of parental mediation or peer were related to the amount of television viewing during the week and on weekends ($r < 0.1$, n.s.). Viewing television alone was related to more viewing time both during the week and on weekends ($r_{(141)}$ = 0.23, $p < 0.01$ and $r_{(139)}$ = 0.20, $p < 0.05$, respectively). Restricting parental mediation specifically regarding Big Brother was related to less time spent per week viewing the show ($r_{(140)}$ = -0.20, $p < 0.05$), whereas co-viewing and active parental mediation specific to Big Brother were related to more time spent per week viewing the show ($r_{(139)}$ = 0.34, $p < 0.01$ and $r_{(140)}$ = 0.20, $p < 0.05$, respectively). Viewing alone was also related to more time spent per week viewing the show ($r_{(140)}$ = 0.18, $p < 0.05$).

General Discussion

Reality television has been topping the television ratings in the past several years in the US and in Israel (Israeli Audience Research Board, 2013; The Neilson Company, 2013). Because aggression in these shows is portrayed more realistically than in non-reality programs, and as justified, in the form of relational aggression, it is of greater concern that children might imitate it (Donnerstein et al., 1994). The study sought to further the understanding of the role of viewing company and types of parental mediation, and to examine their relationships to attitudes toward reality television. Convergent findings from our qualitative and quantitative studies demonstrate the importance of active parental mediation in the viewing of reality television. Children who received no mediation (those who watch alone) were found to watch more television in general and more reality shows in particular. They also identified with the show's characters and admired them, in particular characters who showed the greatest amount of relational aggression. These children showed little criticism of relational aggression. Additionally, their reaction to the show resembles concerning emotional phenomena such as para-social interaction (the development of an imagined friendship with a media personality, Horton & Wohl, 1956) and transportation (the experience of emotional and cognitive absorption into a narrative, Green & Brock, 2000).

The more active parental mediation was, the better the outcomes were. Active mediation, which took advantage of the viewing opportunity for social learning (Bandura, 1977), was associated with greater criticism of characters that displayed undesirable behavioral traits (e.g., relational aggression) and preference for characters that scored low on measures of undesirable traits. These findings are similar to those of Nathanson (1999) and Rasmussen (2013), who found that active mediation tends to produce more positive outcomes. In the case of less active parental

Table 3 Correlations between parental mediation and viewing company on attitudes toward Big Brother

	Active mediation	Restrictive mediation	Co-viewing	Peer mediation	Watching alone
Identification	$r(138) = .09$, $p = .97$	$r(138) = .02$, $p = .97$	$r(138) = .22$, $p < .01$	$r(138) = .18$, $p < .05$	$r(138) = .36$, $p < .01$
Enjoyment	$r(138) = -.06$, $p = .94$	$r(138) = .09$, $p = .28$	$r(138) = .18$, $p < .05$	$r(138) = .08$, $p = .31$	$r(138) = .11$, $p = .19$
Criticism	$r(138) = .28$, $p < .01$	r(138) = .15, $p = .07$	$r(138) = .17$, $p < .05$	$r(138) = .19$, $p < .05$	$r(138) = .04$, $p = .61$
Realism	$r(138) = .09$, $p = .23$	$r(138) = .03$, $p = .96$	$r(138) = .21$, $p < .05$	$r(138) = .17$, $p < .05$	$r(138) = .33$, $p < .01$

mediation, positive effects on children's attitudes decreased. Although restricted mediation was effective in decreasing viewing time, it was not found to have any effect on children's perceptions and reactions toward the show and its characters.

Moderately active parental mediation (i.e., co-viewing) and peer mediation resulted in intermediate effects on children's perceptions of the show and its characters, with co-viewing showing no advantage over peer mediation. Although co-viewing was associated with critical perspectives toward the show, and particularly toward characters with undesirable traits, it was also associated with admiration for the characters and identification with them, and with a perception of the interactions between them as reflecting real-life social behavior. This finding is similar to those of previous studies on co-viewing, which showed that children believed that the television characters represent real-life individuals (Messaris & Kerr, 1984).

These findings have important implications for parents and educators and show the contribution of active parental mediation to viewing reality television by children. Reality shows expose children to large amounts of relational aggression (Coyne et al., 2010; 2016), which may have negative outcomes (Coyne & Archer, 2005; Coyne et al., 2010; Linder & Gentile, 2009), but our findings suggest that with active mediation, viewing time can be used for acquiring desirable social skills. Parents may go beyond restricting viewing time, and actively contribute to their children's social understanding of interpersonal relationships, helping them adopt a critical view.

Additionally, because peers were able to provide at least moderately effective mediation (see also Caronia, 2009), our findings suggest important practical recommendations that extend beyond the parental environment. Although future studies are required, educators can offer important guidance for reality show viewing through tailored classes and extra hours dedicated to help peers become a positive active mediation in viewing television. Health-care providers and governments should invest in training educators, parents and peers in providing active mediation. Such steps are of even greater importance with populations at risk were parents can't or don't have time to actively parental mediate.

Some limitations of the present research must be noted. No causality can be inferred from these correlational studies because the type of mediation was not manipulated experimentally. Although we statistically controlled for several potential confounding variables, others may still exist and influence the results. The study focused on one reality show, making generalization difficult. Finally, the snowball sampling we used may have led to a biased study group and a wide range of ages. At the same time, an important strength of the present research is the fact that findings were replicated in two studies using different methodologies.

Conclusion

Reality television is growing in popularity. Because it does not have as much physical aggression than non-reality shows, it may appear to be less harmful, but it does have larger amounts of relational aggression. Restricting the amount of television is not enough to deal with the negative effects of reality television. Active parental mediation made the greatest contribution to the children's attitudes toward the show and its characters, and incorporating active mediation is important for transforming reality show viewing into important social development training. The most important implication of the present research is that parents and educators should not be bystanders in children's reality show viewing, because it may result in the children's identification with undesirable behavior, such as relational aggression. Merely restricting the children's viewing time, as the American Academy of Pediatrics recommends, is not sufficient. Incorporating active mediation is important for transforming reality show viewing into important social development training.

The relevance of the current study goes far beyond the specific show. The essence of the findings is relevant to the growing number of TV shows which describe people in their real interactions with others, and the risks, as well as potential, learning experiences this may have for children and adolescents lives.

Author Contributions Not applicable

Funding No funding/grant for this study.

Data Availability Material Not applicable.

Compliance with Ethical Standards

Conflict of interest No conflict of interest.

Ethical Approval The study received approval from the institutional review board (IRB) of Achva Academic College.

Informed Consent Informed consent was obtained from all individual participants included in the study. All authors give their consent to the publication of the article. There is no impediment to publication of the article. The manuscript formatting is according to the "Manual of the American Psychological Association (Seventh Edition)."

References

American Academy of Pediatrics (2016) Council on communications and media: Media and young minds. *Pediatrics*, *138*:e 20162591

Anderson, P., De Bruijn, A., Angus, K., Gordon, R., & Hastings, G. (2009). Impact of alcohol advertising and media exposure on adolescent alcohol use: A systematic review of longitudinal studies. *Alcohol and Alcoholism, 44,* 229–243.

Anderson, C. A., Shibuya, A., Ihori, N., Swing, E. L., Bushman, B. J., & Sakamoto, A. (2010). Violent video game effects on aggression, empathy, and prosocial behavior in Eastern and Western countries: A meta-analytic review. *Psychological Bulletin, 136,* 151–173.

Archer, J., & Coyne, S. M. (2005). An integrated review of indirect, relational, and social aggression. *Personality and Social Psychology Review, 9,* 212–230.

Arifinda, N. A., & Hastuti, D. (2016). The influence of television access and impersonating violent contents to bullying behavior on elementary school children. *Journal of Child Development Studies, 1,* 1–12.

Atkin, C. (1983). Effects of realistic TV violence vs. fictional violence on aggression. *Journalism Quarterly, 60,* 615–621.

Bandura, A. (1977). *Social learning theory*. Oxford: Prentice Hall.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3,* 77–101.

Block, M. (1995). Development and validation of the children's attitudes toward integrated physical education-revised (CAIPE-R) inventory. *Adapted Physical Activity Quarterly, 12,* 60–77.

Boyatzis, R. E. (1998). *Transforming qualitative information: Thematic analysis and code development*. Newbury Park, CA: Sage.

Busselle, R. W., & Greenberg, B. S. (2000). The nature of television realism judgments: A reevaluation of their conceptualization and measurement. *Mass Communication & Society, 3,* 249–268.

Bybee, C. R., Robinson, D., & Turow, J. (1982). Determinants of parental guidance of children's television viewing for a special subgroup: Mass media scholars. *Journal of Broadcasting, 26,* 697–710.

Caronia, L. (2009). Coviewing in an Italian classroom. *Journal of Children and Media, 3,* 267–285.

Crabtree, B. F., & Miller, W. L. (Eds.). (1992). *Doing qualitative research*. Newbury Park, CA: Sage.

Crick, N. R., Ostrov, J. M., & Werner, N. E. (2006). A longitudinal study of relational aggression, physical aggression, and children's social–psychological adjustment. *Journal of Abnormal Child Psychology, 34,* 127–138.

Collier, K. M., Coyne, S. M., Rasmussen, E. E., Hawkins, A. J., Padilla-Walker, L. M., Erickson, S. E., & Memmott-Elison, M. K. (2016). Does parental mediation of media influence child outcomes? A meta-analysis on media time, aggression, substance use, and sexual behavior. *Developmental psychology, 52,* 798–812.

Coyne, S. M. (2016). Effects of viewing relational aggression on television on aggressive behavior in adolescents: A three-year longitudinal study. *Developmental psychology, 52,* 284–295.

Coyne, S. M., & Archer, J. (2005). The relationship between indirect and physical aggression on television and in real life. *Social Development, 14,* 324–338.

Coyne, S. M., Robinson, S. L., & Nelson, D. A. (2010). Does reality backbite? Physical, verbal, and relational aggression in reality television programs. *Journal of Broadcasting & Electronic Media, 54,* 282–298.

Desmond, R. J., Singer, J. L., Singer, D. G., Calam, R., & Colimore, K. (1985). Family mediation patterns and television viewing. *Human Communication Research, 11,* 461–480.

Donnerstein, E., Slaby, R. G., & Eron, L. D. (1994). The mass media and youth aggression. In L. D. Eron, J. Gentry, & P. Schlegel (Eds.), *Reason to hope: A psychosocial perspective on violence and youth* (pp. 219–250). Washington DC: American Psychological Association.

Dorey, E., Roberts, V., Maddison, R., Meagher-Lundberg, P., Dixon, R., & Ni Mhurchu, C. (2009). Children and television watching: A qualitative study of New Zealand parents' perceptions and views. *Child: Care. Health and Development, 36,* 414–420.

Dorr, A., Kovaric, P., & Doubleday, C. (1989). Parent-child coviewing of television. *Journal of Broadcasting & Electronic Media, 33,* 35–51.

Epstein, L. H., Paluch, R. A., Kilanowski, C. K., & Raynor, H. A. (2004). The effect of reinforcement or stimulus control to reduce sedentary behavior in the treatment of pediatric obesity. *Health Psychology, 23,* 371–380.

Eron, L. D. (1963). Relationship of TV viewing habits and aggressive behavior in children. *The Journal of Abnormal and Social Psychology, 67,* 193–196.

Evans, C. A., Jordan, A. B., & Horner, J. (2011). Only two hours? A qualitative study of the challenges parents perceive in restricting child television time. *Journal of Family Issues, 32,* 1223–1244.

Fonagy, P., & Target, M. (1998). Mentalization and the changing aims of child psychoanalysis. *Psychoanalytic Dialogues, 8,* 87–114.

Green, M. C., & Brock, T. C. (2000). The role of transportation in the persuasiveness of public narratives. *Journal of Personality and Social Psychology, 79,* 701–721.

Hill, A. (2002). Big brother the real audience. *Television & New Media, 3,* 323–340.

Horton, D., & Wohl, R. R. (1956). Mass communication and para-social interaction: Observations of intimacy at a distance. *Psychiatry, 19,* 215–229.

Huesmann, L. R., Moise-Titus, J., Podolski, C. L., & Eron, L. D. (2003). Longitudinal relations between children's exposure to TV violence and their aggressive and violent behavior in young adulthood: 1977–1992. *Developmental Psychology, 39,* 201–221.

Israeli Audience Research Board (2013) *Weekly ranking of television shows*. Summer 2013. http://www.midrug-tv.org.il.

Ito, M., Baumer, S., Bittanti, M., Cody, R., Herr-Stephenson, B., Horst, H. A., et al. (2010). *Hanging out, messing around, and geeking out: Kids living and learning with new media*. The MIT Press.

Jago, R., Page, A., Froberg, K., Sardinha, L. B., Klasson-Heggebø, L., & Andersen, L. B. (2008). Screen-viewing and the home TV environment: The European Youth Heart Study. *Preventive Medicine, 47,* 525–529.

Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. A. (2007). Toward a definition of mixed methods research. *Journal of Mixed Methods Research, 1,* 112–133.

Jordan, A. B., Hersey, J. C., McDivitt, J. A., & Heitzler, C. D. (2006). Reducing children's television-viewing time: A qualitative study of parents and their children. *Pediatrics, 118,* e1303–e1310.

Linder, J. R., & Gentile, D. A. (2009). Is the television rating system valid? Indirect, verbal, and physical aggression in programs viewed by fifth grade girls and associations with behavior. *Journal of Applied Developmental Psychology, 30,* 286–297.

Lopez, A. D., Mathers, C. D., Ezzati, M., Jamison, D. T., & Murray, C. J. (2006). Global and regional burden of disease and risk factors, 2001: Systematic analysis of population health data. *Lancet, 367,* 1747–1757.

Mares, M. L., & Woodard, E. (2005). Positive effects of television on children's social interactions: A meta-analysis. *Media Psychology, 7,* 301–322.

Marshall, N. A., Arnold, D. H., Rolon-Arroyo, B., & Griffith, S. F. (2015). The association between relational aggression and internalizing symptoms: A review and meta-analysis. *Journal of Social and Clinical Psychology, 34,* 135–160.

Marshall, S. J., Biddle, S. J., Gorely, T., Cameron, N., & Murdey, I. (2004). Relationships between media use, body fatness and physical activity in children and youth: A meta-analysis. *International Journal of Obesity, 28,* 1238–1246.

Martins, N., & Wilson, B. J. (2012). Social aggression on television and its relationship to children's aggression in the classroom. *Human Communication Research, 38,* 48–71.

Messaris, P., & Kerr, D. (1984). TV-related mother-child interaction and children's perceptions of TV characters. *Journalism & Mass Communication Quarterly, 61,* 662–666.

Nathanson, A. I. (1999). Identifying and explaining the relationship between parental mediation and children's aggression. *Communication Research, 26,* 124–143.

Nathanson, A. I. (2001a). Parent and child perspectives on the presence and meaning of parental television mediation. *Journal of Broadcasting & Electronic Media, 45*(2), 201–220.

Nathanson, A. I. (2001b). Parents versus peers exploring the significance of peer mediation of antisocial television. *Communication Research, 28,* 251–274.

Nathanson, A. I. (2002). The unintended effects of parental mediation of television on adolescents. *Media Psychology, 4,* 207–230.

Nathanson, A. I., & Cantor, J. (2000). Reducing the aggression-promoting effect of violent cartoons by increasing children's fictional involvement with the victim: A study of active mediation. *Journal of Broadcasting & Electronic Media, 44,* 125–142.

Nelson, D. A., Springer, M. M., Nelson, L. J., & Bean, N. H. (2008). Normative beliefs regarding aggression in emerging adulthood. *Social Development, 17,* 638–660.

Neilson Company. *CBS Top Summer Shows 2013*. Summer 2013. http://www.neilsen.com

Nikken, P., & de Graaf, H. (2013). Reciprocal relationships between friends' and parental mediation of adolescents' media use and their sexual attitudes and behavior. *Journal of Youth and Adolescence, 42,* 1696–1707.

Rasmussen, E. (2013). Theoretical underpinnings of reducing the media's negative effect on children: Person-centered, negatively-valenced evaluative mediation within a persuasion framework. *Annals of the International Communication Association, 37,* 379–406.

Reysen, S., & Katzarska-Miller, I. (2017). Association between reality television and aggression: It depends on the show. *AASCIT Journal of Psychology, 3,* 56–61.

Roscoe, J. (2001). Big Brother Australia Performing the 'real' twenty-four-seven. *International Journal of Cultural Studies, 4,* 473–488.

Rose, J. (2008). *On reality TV, less sleep means more drama* (Morning). Washington DC: National Public Radio.

Rosenberg, M. (1965). Rosenberg self-esteem scale (RSE). *Acceptance and commitment therapy. Measures package*, *61*.

Sasson, H., & Mesch, G. (2014). Parental mediation, peer norms and risky online behavior among adolescents. *Computers in Human Behavior, 33,* 32–38.

Seon-Kyoung, A., & Doohwang, L. (2010). An integrated model of parental mediation: The effect of family communication on children's perception of television reality and negative viewing effects. *Asian Journal of Communication, 20,* 389–403.

Sproull, N. (1973). Visual attention, modeling behaviors, and other verbal and nonverbal meta- communication of pre-kindergarten children viewing Sesame Street. *American Educational Research Journal, 10,* 101–114.

Strasburger, V. C., & Donnerstein, E. (1999). Children, adolescents, and the media: Issues and solutions. *Pediatrics, 103,* 129–139.

Valkenburg, P. M., Krcmar, M., Peeters, A. L., & Marseille, N. M. (1999). Developing a scale to assess three styles of television mediation: "Instructive mediation", "restrictive mediation", and "social coviewing." *Journal of Broadcasting & Electronic Media, 43,* 52–66.

Van den Bulck, J., & Van den Bergh, B. (2000). The influence of perceived parental guidance patterns on children's media use: Gender differences and media displacement. *Journal of Broadcasting & Electronic Media, 44,* 329–348.

Vandewater, E. A., Park, S., Huang, X., & Wartella, E. A. (2005). 'No–you can't watch that': Parental rules and young children's media use. *American Behavioral Scientist, 48,* 608–623.

Verona, E., Sadeh, N., Case AReed, S. M., & Bhattacharjee, A. (2008). Self-reported use of different forms of aggression in late adolescence and emerging adulthood. *Assessment, 15,* 493–510.

Ward, L. M., & Carlson, C. (2013). Modeling meanness: Associations between reality TV consumption, perceived realism, and adolescents' social aggression. *Media Psychology, 16,* 371–389.

Zilka, C. G., & Romi, S. (2018). Television viewing habits and identification with characters seen among at-risk and normative children and youth. *International Journal of Child, Youth and Family Studies, 9*(3), 47–67.