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Do parental co-viewing and discussions mitigate TV-induced fears in young children?

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Abstract

Background While excessive television viewing has been associated with negative outcomes in children's welfare, parental co-viewing has been suggested as an effective way to prevent these negative effects. The objective of the present study is to specify some social contexts of co-viewing and to assess whether co-viewing modifies the effects of media on children's TV-related fears.

Methods The study is based on a representative random sample of 331 children aged 5–6 years. It is based on parental reports of children's TV-related fears and family television viewing practices.

Results Parental co-viewing and discussion of television programmes with the child were found to be associated with higher rates of children's TV-related fears, high television exposure in general and watching adults' television programmes. The association between TV-related fears and co-viewing remained significant even after controlling for gender, maternal education, family income and the quantity and quality of television viewing. Co-viewing and TV-related discussions increased the risk for TV-related fears nearly fourfold (adjusted odds ratio 3.92, 95% confidence interval 1.37–11.17 and adjusted odds ratio 3.31, 95% confidence interval 1.33–8.20, respectively).

Conclusions The findings suggest that co-viewing and discussing television programmes are more common in families where television exposure is high. Because both co-viewing and discussing television programmes were associated with higher fear scores regardless of the quantity and quality of television exposure, the research shows that in everyday life co-viewing may not be done in such a way that it leads to a reduction of children's fears. More studies are needed to explore the co-viewing practices of families in more detail.

Keywords
active mediation, children, co-viewing, fears, parental mediation, television

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Introduction

There are numerous studies on television's adverse effects on children's health, behaviour, cognition and emotions (Valkenburg *et al.* 2000; Cantor 2002; Hancox *et al.* 2004, 2005; Anand & Krosnick 2005). TV-induced fears are also common among children (Cantor & Hoffner 1990; Cantor 1998; Korhonen & Lahikainen 2008) and they may be long-standing and generalize to everyday life (Cantor & Nathanson 1996; Valkenburg *et al.* 2000; Cantor 2002; Smith & Wilson 2002). American Academy of Pediatrics Committee on Public Education has suggested that parental co-viewing and involvement are effective ways to prevent the negative effects of TV on children, but further research on the prevention of the adverse effects of TV has also been called for (Brown & Cantor 2000).

According to Austin and colleagues (1990), the term 'co-viewing' has been used to refer to contexts where parents watch TV with the children offering their interpretations and

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evaluations of the contents to the children. Co-viewing with parents can promote learning among pre-school children (Rice *et al.* 1990) and may enhance children's understanding of television content, because adults can help children to make sense of ambiguous media content by offering alternative information about the things seen on television and thus encourage the child towards a media-critical attitude (Van Evra 2004). This has been confirmed in two experimental studies. Nathanson and Cantor (2000) showed that when children were encouraged to focus on the feelings of the victim in a violent cartoon, boys in the group of active mediation were less aggression-prone afterwards than boys in the control group. Wilson and Weiss (1993) found that pre-school children who were viewing a suspenseful movie scene with older sibling were less emotionally aroused and liked the programme more than those who watched alone.

However, negative outcomes of co-viewing have also been reported. Rice and colleagues (1990) found that extensive co-viewing of adult programmes is associated with low language development, high exposure to TV viewing in general and low exposure to educational programmes. Moreover, Desmond and colleagues (1990) suggested that parental mediation during viewing can sometimes have an adverse effect on children's experiences, as parents may actually direct children's attention to critical or frightening themes. Parents may also implicitly and inadvertently condone violent programmes when co-viewing, which may be interpreted as an endorsement of the co-viewed material (Nathanson 2001).

The surveys studying the types of mediation have mostly been conducted in samples where highly educated families are overrepresented and the dropout rate has been high, which limits the generalizability of the findings (Stoddart 2006). Apart from a few exceptions, the previous studies on children's television use have focused on children older than 6 years (Rideout *et al.* 2003; Wartella *et al.* 2005; Vandewater *et al.* 2007). We found only one study where the association between types of mediation and fears was studied in everyday settings (Wilson & Weiss 1993). Thus, our understanding of different strategies for modifying the adverse effects of TV on children in different age groups is still very fragmentary.

According to Nathanson (2001), parents can intervene in TV viewing by: (1) active mediation (discussion and comments on the programme content); (2) restrictive mediation (setting TV rules); and (3) co-viewing (watching together). The three types of mediation are related to parental attitudes towards TV viewing. Active and restrictive mediation were related to negative parental attitudes towards violent TV programmes while those with more positive attitudes towards TV viewing tended to co-view (Nathanson 2001). The content of discussions, however, also modifies the effects of active mediation. In an experimental study by Cantor and Wilson (1984), 3- to 5-year-olds and 9- to 11-year-olds were compared in respect to their capacity to utilize viewing instructions when viewing frightening films. They found that cognitive explanations did not work in the younger age group, and thus the intervention did not affect children's reactions in this age group. The authors concluded that young children's coping skills may not be sufficiently developed to make them responsive to this kind of intervention.

In this article, we first describe patterns of young children's television viewing in the social context of the family. The major aim was to assess how parental co-viewing and discussions of TV programmes are related to children's TV-induced fears. Although children's TV-related fears are common, not much is known about the factors they are related to. As there is general empirical evidence to suggest that seeking support from adults when scared is an effective way of coping with fears, we hypothesized that co-viewing reduces children's TV-related fears (Valkenburg *et al.* 2000). We also studied the role of TV exposure in mediating the effects of co-viewing and fears. The positive effects of co-viewing can be hypothesized to depend on the context in which it occurs, and thus our hypothesis is that co-viewing might be more important in families where children watch more adult programmes as compared with other families.

Methods

A population-based random sample of families with children aged 5–6 years was drawn from the Population Register. The sampling frame consisted of 428 children born between 1 January 1997 and 31 December 1998. An information letter was sent to all parents, who were then contacted by telephone to determine whether they wanted to participate in the study. It was not possible to reach 64 of the families and 33 declined the offer to participate. Ten cases were ineligible based on predefined exclusion criteria: child's severe handicap (n = 3), parents' poor/no knowledge of the language (n = 3), severe parental alcohol problems (n = 1) and moving out of town (n = 3). Questionnaires were sent to 331 families, and 24 cases did not return the questionnaires despite reminders. The final sample consisted of 297 families, giving a response rate of 92.5%.

The TV questionnaire to parents included 34 items. The first questions concerned the overall length of time that the TV was switched on in the household, the length of time that the TV was on while the target child was awake and the length of time

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the child spent viewing TV. Weekdays and weekends were considered separately. There were 17 statements concerning TV viewing, for example, viewing frequencies by programme type, video viewing, frequencies of different types of co-viewing ('How often do you watch TV with your child?', 'How often does the child watch TV with his/her peers?', 'How often does the child watch TV alone?'), active mediation ('How often do you discuss the content of TV programmes with your child?'), child's activity in making questions ('How often does the child ask questions about TV programmes?') as well as parents' evaluation of TV-induced fears and TV-induced nightmares ('How often do the TV programmes induce fears/induce nightmares in your child?'). All these items were rated on a 5-point scale ('never', 'occasionally = less than 1–2 times a month', 'sometimes = 1–2 times a week', 'often = 3–5 times a week' and 'always = daily'). Finally, there were seven dichotomous statements concerning rules related to TV viewing. The total weekly TV viewing time was computed from the hours that the TV was switched on in the household on weekdays and also on weekends ($5 \times$ weekday + $2 \times$ weekend) and it was dichotomized at the 75th percentile. Exposure to different programme types were studied using factor analysis as reported previously. In this study we dichotomized the exposure to adult TV programmes at the 75th percentile.

The three mediation strategies assessed were co-viewing, discussing TV programmes (active mediation) and presence of TV rules (restrictive mediation). For the analyses, variables indicating co-viewing and active mediation were dichotomized at ≤1–2 times per week (the occasional co-viewers or discussers) vs. ≥3–5 times per week (the frequent co-viewers or discussers). First, we assessed how frequently the various mediation strategies are used. In the next stage, we studied how TV viewing habits in the family are associated with co-viewing. Pairwise comparisons were made using χ^2-tests, *t*-tests or Spearman's correlation coefficients. Logistic regression analyses were then performed to investigate the associations between children's fear scores and the two mediation styles. The fear score was the response variable and it was dichotomized at occasional (≤1–2x/month; $n = 261$, 89.7%) vs. frequent fears (≥1–2x/week, $n = 30$, 10.3%). The two explanatory variables were: co-viewing as dichotomized at occasional (≤1–2x/week, $n = 129$, 44.6%) vs. frequent (≥3–4x/week; $n = 160$, 55.4%) co-viewing; and active mediation as dichotomized at occasional (≤1–2x/week, $n = 171$, 59.0%) vs. frequent discussions on TV programmes (≥3–5x/week, $n = 119$, 38.5%).

First, separate logistic regression models were estimated for the two explanatory variables. In the adjusted models we controlled for the theoretically significant background variables (i.e. those that have been associated with fears and TV viewing in the previous literature). They were gender, mother's education, family income, exposure to adult TV programmes (low vs. high as described above) and weekly TV viewing time (low vs. high as described above). Finally, we studied interactions between co-viewing, active mediation and TV exposure to find out whether the effects of co-viewing and active mediation depend on the quantity or quality of the child's TV exposure. Assumption testing was conducted to check for multicollinearity, and univariate and multivariate outliers, with no serious violations found. The level of statistical significance was set as $P < 0.05$.

Results

Frequency of co-viewing/discussing TV programmes

We found that more than half (55.4%) of the parents reported watching television with their children often or always (Table 1). Only 6.2% of the parents said that they watched TV with the child only occasionally or never. Similarly, the parents reported that more than half (57.4%) of the children often watched TV with their siblings or peers. However, almost a third (29.8%) of the children watched TV mostly alone. Nearly a half (44.2%) of the children often asked questions concerning the TV programmes, while only every tenth child rarely had questions concerning TV programmes. As many as 41.1% of the parents also reported often discussing TV programmes with their children. Restrictive mediation was also common, with most of the parents reporting having had rules concerning TV

Table 1. Frequencies of distributions of TV viewing in different social contexts

	Never	Occasionally	Sometimes	Often	Always	
	n (%)	*n* (%)	*n* (%)	*n* (%)	*n* (%)	Total *N*
Co-viewing with parents	1 (0.3)	17 (5.9)	111 (38.4)	106 (36.7)	54 (18.7)	289
Co-viewing with peers/siblings	21 (7.2)	53 (18.2)	50 (17.2)	101 (34.7)	66 (22.7)	291
Watching TV alone	22 (7.6)	81 (28.0)	100 (34.6)	69 (23.9)	17 (5.9)	289
Child asks about TV programmes	3 (1.1)	33 (11.6)	123 (43.2)	88 (30.9)	38 (13.3)	285
Parents discuss about TV programmes with the child	3 (1.0)	34 (11.7)	134 (46.2)	91 (31.4)	28 (9.7)	290

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viewing (91.7%, n = 265), the programme types allowed (98.3%, n = 284) or the timing of TV viewing (88.6%, n = 257).

Socio-economic factors related to co-viewing

Parental co-viewing was associated with parents' education and socio-economic status (SES). Mothers with low education and SES were more likely to co-view regularly than those with higher education: 66.4% (n = 73) of those with lower education co-viewed at least three to five times a week, whereas only 48.9% (n = 87) of the mothers with upper secondary school education did so (χ^2 = 8.42, d.f. = 3, P < 0.01). Similarly, 65.7% (n = 67) of the mothers with the lowest SES co-viewed regularly, while only 49.4% (n = 39) of the mothers belonging to the highest-SES group did so (χ^2 = 6.98, d.f. = 3, P = 0.07). Co-viewing was not dependent on the father's education or SES, or on the mother's or the father's occupation or work arrangements. Instead, co-viewing was more common in those families where the child did not attend day care: 69.2% (n = 27) of the parents of these children were frequent co-viewers as compared with 51.9% (n = 123) of other families (χ^2 = 4.06, d.f. = 1, P = 0.04).

TV exposure and co-viewing

The frequency of parental co-viewing was significantly related to all indicators of high TV exposure, such as the time the TV was on (r = 0.22, P < 0.01), and the child's TV viewing time (r = 0.23, P < 0.01) (Table 2, Fig. 1). The families with frequent co-viewing kept the TV on for an average of 30.77 ± 12.17 h/week as compared with 26.87 ± 11.55 h/week in other families (t = −2.71, d.f. = 276, P < 0.01). Co-viewing was also significantly related to the programme types watched. It correlated with viewing children's programmes (r = 0.25, P < 0.01) as well as viewing adult programmes (r = 0.30, P < 0.01). Similarly, discussing TV programmes was related to viewing adult programmes (r = 0.29, P < 0.01) and children's programmes (r = 0.25, P < 0.01).

Table 2. Correlations between television fears and different TV viewing habits

	TV programmes cause fears	Nightmares about TV programmes
	r (*P*)*	*r* (*P*)*
Co-viewing with peers/siblings	0.08 (0.17)	0.05 (0.43)
Co-viewing with parents	**0.18 (<0.01)**	−0.01(0.94)
Watching TV alone	−0.03 (0.65)	−0.00 (0.99)
Child asks about TV programmes	**0.25 (<0.01)**	**0.13 (0.02)**
Parents discuss about TV programmes with the child	**0.19 (<0.01)**	0.07 (0.24)
Viewing children's programmes	**0.25 (0.01)**	0.09 (0.25)
Viewing adult's programmes	**0.25 (0.01)**	**0.30 (<0.01)**
TV weekly open in the family (h/week)	**0.14 (0.02)**	0.10 (0.11)
Child's weekly TV viewing time (h/week)	0.05 (0.41)	0.09 (0.12)

*Spearman's correlation coefficients, statistically significant values are bolded.

Co-viewing and TV-related fears

TV-induced fears were prevalent: 10.3% (n = 30) had such fears often or always, 62.2% (n = 181) sometimes, while only 27.5%

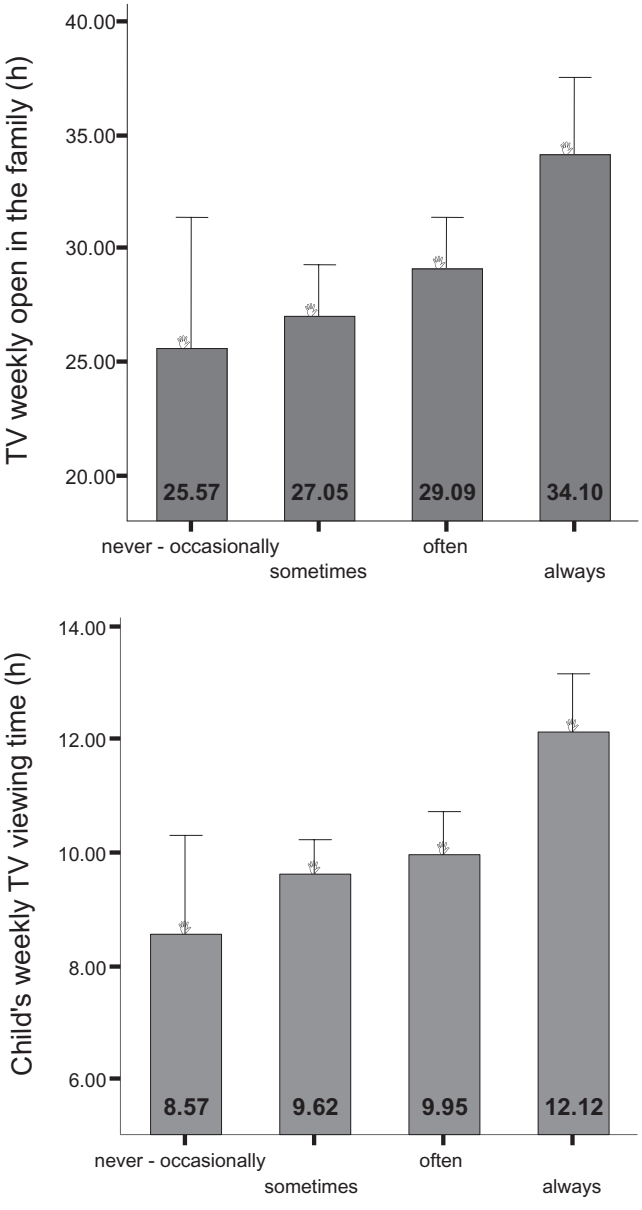

Figure 1. Frequency of co-viewing and the average TV exposure. The error bars represent 95% confidence interval for means.

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($n = 80$) of the children never had such fears. TV-induced nightmares were less common; in 3.8% ($n = 11$) of the children they were reported to occur sometimes, in 37.0% ($n = 107$) occasionally, while 59.2% ($n = 171$) of the children never had such nightmares. TV-induced fears and nightmares were correlated with TV exposure, co-viewing and active mediation (Table 2). Particularly, they were more common among the co-viewers ($\chi^2 = 7.91$, d.f. = 3, $P = 0.05$), and in families where discussing TV programmes was common ($\chi^2 = 13.87$, d.f. = 3, $P < 0.01$), while viewing alone was not related to TV-related fears ($\chi^2 = 4.10$, d.f. = 3, $P = 0.25$).

Because TV exposure was associated with both TV-related fears and co-viewing (Table 2), we hypothesized that it is the TV exposure, and not primarily co-viewing, that increases children's risk for fears. To examine this hypothesis, we constructed logistic regression models to study how co-viewing and active mediation relate to children's TV-related fears when the background factors (gender, mother's education, family income, TV viewing time and exposure to adult TV programmes) were controlled statistically. However, co-viewing and discussions still increased the risk for TV-related fears almost fourfold [odds ratio (OR) 3.92, 95% confidence interval (CI) 1.37–11.17 and OR 3.31, 95% CI 1.33–8.20, respectively] (Table 3). We also stratified the analyses according to the mother's education to ensure that the relationship between co-viewing and fears is not just a reflection of their joint correlation with SES. In families with low maternal education, the adjusted OR was 2.56 (95% CI 0.65–10.06) and in families with high maternal education it was 4.12 (95% CI 1.05–16.12). Along these lines, the interaction between maternal education and co-viewing was also non-significant ($P = 0.63$), suggesting that the relationship of co-viewing and fears is similar in families with low and high educational levels. Finally, we studied the interaction terms between the two mediation strategies and the TV exposure, but none of the four interaction terms were statistically significant. It suggests that the effects of co-viewing are not dependent on the quantity or quality of TV exposure.

Discussion

In our study, most parents reported co-viewing regularly with their 5- to 6-year-old children, which is consistent with Strasburger (1992) and Valerio and colleagues (1997), who found that about half of the parents report always watching TV with their children (Strasburger 1992; Valerio *et al.* 1997). However, Bernard-Bonnin and colleagues (1991) reported that only 20.0% of parents frequently watch television with their children. These differences in the rates of co-viewing may reflect cross-cultural differences, because Pasquier and colleagues (1998), for example, found that in countries where parents were more permissive with their children (Italy and Sweden), children often watched their favourite TV programmes alone. They also talked less about media with their parents than the children of the stricter Flemish and French parents.

We found that parental co-viewing was associated with the mother's lower education and SES, but not the parent's employment status, which corresponds to previous studies (Bernard-Bonnin *et al.* 1991; Certain & Kahn 2002). Furthermore, co-viewing was also associated with the overall TV exposure in the family and viewing adult TV programmes, which in turn parallels the findings by Nathanson (2001) and Nathanson and colleagues (2002), who reported co-viewing to be related to

Table 3. Co-viewing and discussing TV programmes and children's TV-related fears as studied in multivariate logistic regression models

	Frequent TV-related fears (1–2x/month or more)		
	***n* (%)‡**	**OR (95% CI) [*P*]***	**AOR (95% CI)† [*P*]†**
Occasional co-viewing (1–2x/month or less), $N = 129$ vs.	7 (5.4)		
Frequent co-viewing (1–2x/week or more), $N = 160$	22 (13.8)	2.78 (1.15–6.73) [0.019]	3.92 (1.37–11.17) [0.011]
Occasional discussions on TV viewing (1–2x/month or less), $N = 171$ vs.	11 (6.4)		
Frequent discussions on TV viewing (1–2x/week or more), $N = 119$	19 (16.0)	2.76 (1.26–6.05) [0.009]	3.31 (1.33–8.20) [0.010]

*OR, unadjusted odds ratio; *P*-value based on χ^2-test.

†AOR, adjusted odds ratio: adjusted for gender, maternal education, family income, the child's high weekly TV viewing time (>75th percentile vs. less) and high exposure to adult TV programmes (>75th percentile vs. less). These variables were included in the models regardless of their *P*-value and they were similarly co-variated in both models; the response variable in both models was the prevalence of frequent TV-related fears. Both models are based on 241 cases.

‡*n*, of children with frequent TV-related fears in each group.

We studied four interaction terms relative to children's TV-related fears and none of them were statistically significant: (1) the interaction between co-viewing and high exposure to adult TV programmes, $P = 0.366$; (2) the interaction between co-viewing and the child's high weekly TV viewing time, $P = 0.557$; (3) the interaction between discussing TV programmes and high exposure to adult TV programmes, $P = 0.096$; and (4) the interaction between discussing TV programmes and the child's high TV viewing time, $P = 0.703$.

CI, confidence interval.

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more positive attitudes towards TV and higher TV exposure. These studies suggest that parents' frequent TV viewing thus seems to provide the child with an opportunity to watch more TV.

In opposition to our hypothesis, both co-viewing and active mediation were positively related to children's TV-related fears. Even though most children who co-view regularly with their parents do not have TV-related fears, the children who co-view are 3.9 times more likely to have fears than other children. The study does not allow for causal conclusions to be drawn, but it does suggest that the relationship between children's TV-related fears and co-viewing or active parental mediation is complex and context-dependent. Anderson and Collins (1988) previously underlined that more important than co-viewing by itself are the actual comments and the explanatory behaviour of the mother (Anderson & Collins 1988). For example, factual mediation had less positive effects than evaluative mediation (Nathanson 2004).The effects of mediation can also depend on children's age because the abstract reasoning capacities of very young children may not have developed so that they can utilize viewing instructions to reduce their fears aroused by frightening films (Cantor & Wilson 1984; Rich & Baron, 2001).

The positive effects of co-viewing have mostly been demonstrated in experimental studies. The viewing situation at home, however, differs greatly from experimental research designs, where pre-selected films are presented in strictly controlled viewing conditions. The ecological validity of the positive results of mediation gained in experimental studies may therefore be poor (Cantor *et al.* 1988). TV viewing in a family is a complex social context, where both children's and parents' motivations and interests play a role (Pasquier 2001). Therefore, the positive effects of co-viewing and active mediation may be narrowed by a multiplicity of contextual factors in everyday settings. Parents may usually watch such TV programmes that they themselves are interested in, and children's interests can be secondary to the parents. When the parents watch TV, their ability to empathically understand and respond to their children's emotional reactions can be impaired. Young children may feel lonely if their parents watch TV and by co-viewing they may just seek for parental attention and closeness. Part of young children's co-viewing may therefore be non-consensual especially among the heavy TV users.

Gunter and colleagues (1991) further noted that studying co-viewing is difficult because during a single viewing session several different programmes can be viewed, and they may include a variety of contradictory messages. It has also been suggested that an effective mediation strategy requires identifying and evaluating all antisocial items in a programme, and thus parents should constantly watch television with their children to be able to effectively modify children's reactions to TV programmes (Gunter *et al.* 1991; Nathanson & Cantor 2000). In practice, the parents do not always have time to explain the programme contents to their children. In some cases, it may even be impossible because of the fast event flow on the screen.

Our findings do not, however, suggest that children should be encouraged to view alone, even though viewing alone was not associated with TV-related fears in our study. Previous studies have shown that children can actively avoid too frightening content or seek parental support when they face frightening material (Valkenburg *et al.* 2000; Cantor 2002; Korhonen & Lahikainen 2008). When the child has TV-related fears, the availability of caring and understanding adults is likely to be valuable. Solitary viewing, in turn, has been considered a significant concern, because it increases the risk of children coming into contact with inappropriate programme content, while sharing the viewing situation with the parents allows better control of which programmes are viewed and enables parents to become aware of the child's TV-related fears.

Although our study is based on a representative random sample with a small dropout rate, some limitations need to be mentioned. We had only retrospective reports on TV viewing practices, which may be affected by recall bias. Prospective data collection, such as a TV diary, would increase the accuracy of parental reports in forthcoming studies. Moreover, the measurement of the quality and the quantity of active mediation and co-viewing should be broader than in our study. It is easy to imagine scenarios where parental behaviour makes the child's experience more meaningful and less frightening and in some cases, more confusing and frightening. Observational or qualitative studies carried out in home environments would be particularly valuable. Further studies should also deal with parenting, the home atmosphere and child–parent relationships, as they, along with the other environmental factors, may associate with the families' co-viewing practices and their impact on children. Finally, certain parental characteristics can also be significant confounding factors. Parental anxiety, for example, may influence the TV viewing practices in the family, parents' tendency to report children's fears, and even children's susceptibility to anxiety/fears.

To summarize our findings, neither co-viewing nor active mediation are related to the lower prevalence of young children's TV-related fears, but vice versa. Even though parental mediation, carried out appropriately, can be effective in preventing the negative effects of TV, it seems that in everyday life co-viewing is not carried out adequately so that it would lead to

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an overall reduction of children's fears. Children's exposure to inappropriate and excessive TV content at an early age thus remains a major pedagogical concern. The finding calls for further studies on the prevention of negative effects of TV, with special attention to the role of different forms of co-viewing and active mediation in different contexts. Future guidelines should provide more detailed advice for parents on how to reduce the negative effects of TV, to improve TV viewing practices and to enhance children's media literacy and education. So far, limiting young children's TV viewing seems to be indicated in the prevention of children's fears induced by TV.

Key messages

- Children's TV-related fears are associated with high TV exposure, parental co-viewing and discussing TV programmes with parents.
- Parental co-viewing and discussions on TV programmes are related to children's TV-related fears even when quantity and quality of TV exposure were controlled statistically.
- If co-viewing and discussions on TV programmes represent parental reactions to children's TV fears, they are not sufficient to overcome children's TV-induced fears in everyday viewing situations.
- More important than co-viewing as such may be the actual comments and the explanatory models provided by the parents.
- Limiting young children's TV viewing remains indicative in preventing children's fears induced by TV.

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