

Television and childhood injuries: What has it changed in the last 10 years?

J. Uberos, S. Arias-Santiago, L. Martínez-Marín, A. Molina Carballo, A. Muñoz-Hoyos, G. Galdó-Muñoz

Departamento de Pediatría, Hospital "San Cecilio". Universidad de Granada (España)

Address for correspondence and offprint request: Dr. José Uberos. Dpto. Pediatría. Hospital Clínico San Cecilio. Granada (Spain). eMail: uberosfernandez@terra.es

Originales

ABSTRACT

Almost 10 years ago, we published Television and childhood injuries: Is there a connection. In that study, we assessed the risk of accidents to children who spend many hours in front of the television, and reported OR of 1.32 (CI 95%: 1.00-1.68) of the occurrence of a childhood accident for every hour's TV viewing per day by the child. With respect to the findings we published 10 years ago, the likelihood of childhood accidents, related to TV viewing patterns, has fallen in our society. The percentage of children who view more than 2 hours' TV per day has also decreased. However, at least 10% of childhood traumas could still be avoided if children's TV viewing habits were limited to less than 2 hours per day. The present study, thus, confirms that the efforts made by different agencies over recent decades, aimed at limiting the uncontrolled exposure of children to television, are bearing fruit. Nevertheless, it is still necessary to carry out a periodic assessment of the attitudes of the population with respect to the various channels of mass media in order to design the most appropriate strategies for intervention.

Keywords. *Television; Child; Injuries.*

INTRODUCTION

Almost 10 years ago, we published *Television and childhood injuries: Is there a connection?* (1). In that study, we assessed the risk of accidents to children who spend many hours in front of the television, and reported OR of 1.32 (CI 95%: 1.00-1.68) of the occurrence of a childhood accident for every hour's TV viewing per day by the child. In the light of these worrying findings, 10 years ago we corroborated the first report by the American Academy of Pediatrics on the potential effect by TV in promoting aggressive and violent behaviour (2-4). In recent years, various papers have been published, linking prolonged TV viewing to obesity and changes in nutrition patterns (5), to a higher rate of cranioencephalic traumatism (6) and to sleep disorders (7). Each of these articles, including our own (1), has been highlighted in the media, leading us to consider that people, nowadays, are more aware of the harmful aspects of prolonged, uncontrolled TV viewing. These facts are backed up by the report of the American Academy of Pediatrics (8), which recommended, among other measures, limiting children's TV viewing to no more than 1 or 2 hours per day of quality programming.

MATERIAL AND METHODS

The study was carried out at the Paediatric Emergency Department of the San Cecilio Hospital in Granada (Spain), between July 2005 and April 2006. A random choice was made of times and days for distributing questionnaires among the parents and guardians of the children brought to the Emergency Dept. for treatment. The items included in the questionnaire were the same as in the previous study (1). The questionnaire asks on habits of vision of television referred to the last month. In all, 248 questionnaires were completed, with nobody refusing to participate. Suitable cases for inclusion were considered to be all the children (bigger than 3 years) whose treatment record card stated the reason for treatment as being traumatism or contusion (irrespective of its severity or location). Control cases were taken as being all the children who were treated for other reasons. One control was selected for each study case, subject to the criterion that the age of the control and of the study subject should not differ by more than 2 months. The controls and the study subjects who did not meet this criterion were not included in the analysis, which consisted of a paired study of subjects and their corresponding controls. By this procedure, we obtained 78 pairs of study cases and their respective controls. Statistical calculations were performed using SPSS 13.0 and STATA 9.0 software, to carry out binary and conditional logistic regression analysis.

RESULTS

The mean age of the study subjects was 10.2 years (95% CI: 9.5 to 11.0) and that of the controls was 10.2 years (95% CI: 9.4 to 10.9). The average age of the father and mother of the study subjects was 39.7 years (95% CI: 38.3 to 41.1) and 37.4 years (95% CI: 36.1 to 38.7) respectively, versus 41.2 years (95% CI: 39.9 to 42.5) and 38.6 years (95% CI: 37.4 to 39.8) respectively,

among those of the controls. In our sample, 42.3% of the study subjects and 35.9% of the controls watched TV for more than 2 hours per day. When the parents were asked if they thought there might be too much violence in TV programmes, 79.5% of the study subjects and 73.1% of the controls replied affirmatively. Educational programmes for their children were preferred by 55.6% of the study subjects and 44.4% of the controls. With respect to future repercussions of the content of TV programming on the child's personality, 93.6% of the study subjects and 85.9% of the controls believed this to be a possibility. As regards the different TV channels watched by study subjects and controls, we found no statistical differences (χ^2 : 11.96; p : 0.15).

We performed a paired analysis of the OR of accidents among children who watched more than 2 hours of TV per day and obtained an OR of 1.31 (95% CI: 0.65 to 2.69), with a population attributable fraction of 10.2% (95% CI: 0 to 30.5). The content of children's TV viewing was controlled by 65% of the parents of the study subjects and by 61% of those of the controls.

The OR for childhood accidents, among children who watched TV for more than 2 hours per day, in families in which the parents considered TV programming to be excessively violent, was 0.80 (95% CI: 0.69 to 1.35). Nevertheless, among families in which the latter consideration did not exist, the OR for accidents was 1.29 (95% CI: 0.20 to 8.31). The OR for childhood accidents when more than 2 hours' TV was viewed, adjusted for this variable (MH), was 0.85 (95% CI: 0.44 to 1.66).

In the families in which it was considered that the TV programmes viewed by the children might affect their future personality, the OR for childhood accidents when more than 2 hours' TV were viewed daily was 0.90 (95% CI: 0.46 to 1.76), while the OR adjusted for this

Table 1. Comparative analysis of the variables analyzed study presently and in the one had carried out for 10 years.

	1996 n=221	2006 n=238
Age (years)		
Control	6.9 (CI 95%: 6.4-7.5)	8.7 (CI 95%: 8.1-9.3)***
Cases	9.4 (CI 95%: 8.1-10.6)	10.7 (CI 95%: 10.1-11.3)*
Total	7.5 (CI 95%: 7.0-8.0)	9.6 (CI 95%: 9.2-10.0)***
Age Father (years)		
Control	37.5 (CI 95%: 36.5-38.5)	39.3 (CI 95%: 38.2-40.4)*
Cases	39.9 (CI 95%: 37.6-42.2)	40.2 (CI 95%: 39.1-41.4)
Total	38.0 (CI 95%: 37.1-38.9)	39.7 (CI 95%: 38.9-40.5)**
Age Mather (years)		
Control	33.1 (CI 95%: 32.1-34.1)	37.0 (CI 95%: 36.0-38.0)***
Cases	36.5 (CI 95%: 34.4-38.5)	38.1 (CI 95%: 37.0-38.2)
Total	33.8 (CI 95%: 32.9-34.7)	37.5 (CI 95%: 36.8-38.2)***
I work mother outside of the home		
Control	33.3 % (CI 95%: 26.4-40.9)	52.3 % (CI 95%: 43.3-61.2)***
Cases	40.4 % (CI 95%: 26.4-55.7)	47.7 % (CI 95%: 38.1-57.5)
Total	34.8 % (CI 95%: 28.6-41.5)	50.2 % (CI 95%: 43.7-56.7)***
Mother with superior studies to primary		
Control	7.0 % (CI 95%: 3.7-11.9)	71.5 % (CI 95%: 62.7-79.3)***
Cases	6.4 % (CI 95%: 13.4-11.9)	56.1 % (CI 95%: 46.9-65.0)***
Total	6.9 % (CI 95%: 3.9-11.1)	68.3 % (CI 95%: 61.8-74.2)***
Perception for the parents of excessive violence in Tv		
Control	38.8 % (CI 95%: 30.5-45.5)	81.1 (CI 95%: 73.2-87.5)***
Cases	38.3 % (CI 95%: 24.5-53.6)	77.4 (CI 95%: 68.3-84.7)***
Total	37.9 % (CI 95%: 31.4-44.7)	79.3 (CI 95%: 73.6-84.3)***
Supervision for the parents of the Tv programming		
Control	55.2 % (CI 95%: 47.5-62.7)	86.2 (CI 95%: 78.8-91.7)***
Cases	63.8 % (CI 95%: 48.5-77.3)	78.9 (CI 95%: 70.7-86.1)
Total	57.0 % (CI 95%: 50.2-63.6)	82.8 (CI 95%: 77.3-87.4)***
Hours of television vision		
Control	2.9 (CI 95%: 2.6-3.1)	2.4 (CI 95%: 2.2-2.6)**
Cases	2.5 (CI 95%: 2.1-2.9)	2.5 (CI 95%: 2.2-2.7)**
Total	2.8 (CI 95%: 2.6-3.0)	2.4 (CI 95%: 2.3-2.6)**
OR of accidents for hour of television (adjusted)⁽¹⁾	1.36 (CI 95%: 1.03 – 1.79)	1.07 (CI 95%: 0.86-1.34)

⁽¹⁾ Adjusted by age, number of television apparatuses in the house and siblings' number. ** p<0.01; *** p<0.001.

variable (MH) was 0.81 (95% CI: 0.42 to 1.56).

Among the families in which the mother worked outside the household, the OR for childhood accidents when more than 2 hours' TV were viewed daily was 0.40 (95% CI: 0.15 to 1.02). When the mother did not work outside the household, the OR for childhood accidents

when more than 2 hours' TV were viewed daily was 1.47 (95% CI: 0.59 to 3.66). The OR adjusted for this variable (MH) was 0.78 (95% CI: 0.41 to 1.48). A noteworthy association was observed between the mother's working outside the household and the perception of TV programming as excessively violent (OR: 2.20; 95% CI: 1.0 to 4.84).

DISCUSSION

With respect to the findings we published 10 years ago, the likelihood of childhood accidents, related to TV viewing patterns, has fallen in our society. We don't observe significant association at the present time between infantile accidents and lingering vision of television. The percentage of children who view more than 2 hours' TV per day has also decreased. However, at least 10% of childhood traumatizations could still be avoided if children's TV viewing habits were limited to less than 2 hours per day. Various changes of attitude among parents are also highlighted in our study. On the one hand, there is a greater degree of involvement of women in the job market, to the extent that today 49.4% of the mothers of the study subjects and 50.6% of those of the controls work away from home. Ten years ago, this situation was markedly different, with only 39.2% of the mothers of the study subjects and 33.2% of those of the controls working away from home. Moreover, today the perception by mothers of TV programmes as excessively violent is significantly associated with the fact that these mothers work outside the household.

Some studies (9), have suggested that TV viewing habits of parents might, to a large degree, be transferred to their children. In this sense, the perception that TV programmes may be excessively violent and that this programme content might affect the future development of the child's personality should lead to a change in both the type and the quantity of TV viewed by the child. Ten years ago, the violence shown on TV was considered excessive by 37.3% of parents of the study subjects and 35.6% of those of the controls; today, our findings show that 79.5% of the parents of the study subjects and 73.1% of those of the controls are of the opinion that TV programming is too violent. Moreover, the perception by parents of possible repercussions of the

content of TV programming on the child's personality has also changed substantially: ten years ago, only 17.6% of the parents of the study subjects and 10.9% of those of the controls thought that TV programmes could have some influence on the child's future personality. Today, 93.6% of the parents of the study subjects and 85.9% of those of the controls recognize such a possibility.

The present study, thus, confirms that the efforts made by different agencies over recent decades, aimed at limiting the uncontrolled exposure of children to television, are bearing fruit. Nevertheless, it is still necessary to carry out a periodic assessment of the attitudes of the population with respect to the various channels of mass media in order to design the most appropriate strategies for intervention.

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