

TV and Sleep Habits in School-Aged Children: A Prospective Study

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COLUMN ARTICLE

Abstract

The negative influence of television (TV) on children's sleep quality has been demonstrated in recent studies.

The American Pediatric Association recommends a maximum of 1 to 2 hours of TV per day for children more than 2 years.

The purpose of this study was to know the TV habits of school-aged children, evaluate possible interference of TV on their sleep quality and to know the parents' opinion on this issue.

The methods used was a cross-sectional study with questionnaires filling by parents of three public schools in a period of three months. The inclusion criteria were child attending primary school. The exclusion criteria were neurodevelopmental pathology or sleep modifying therapy. Statistical analysis used in this study was SPSS 16.0, X^2 or t-test, $p < 0.05$.

The material was the deliver in three schools of 173 questionnaires for parents to fill. After criteria review, we included 91 for study and reject other 82.

The results showed that the school students see too much TV. The relationship between excess TV and problems of lack of attention, difficulty in falling asleep, nightmares, night awakenings. was observed.

The parents don't give important that their children have TV in room. On the other hand, the use of TV has few rules. The level education of the mother (less studies), also is responsible for increase hours watching TV.

The parents considered that TV in the room, is a way to encourage sleep.

We conclude that TV habits of this student population are likely to be excessive.

Parents need to be alerted to the impact of inappropriate TV use, may influence their children's sleep and school learning.

Keywords: TV; Student; Sleep Habits

INTRODUCTION

The negative influence of television (TV) on children's sleep quality has been demonstrated in recent studies

The American Pediatric Association recommends a maximum of 1 to 2 hours of TV per day for children > 2 years.

PURPOSE OF THE STUDY

The purpose of this study was to know the TV habits of school-aged children, evaluate possible interference of TV on their sleep quality and to know the parents' opinion on this issue

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METHODS

The purpose of this study was to know the TV habits of school-aged children, evaluate possible interference of TV on their sleep quality and to know the parents' opinion on this issue

Cross-sectional study with questionnaires filling by parents of three Public schools in a period of 3 months. The inclusion criteria were child attending primary school.

The subjects in the questionnaires about TV habits included: equipment, time spent, preferred program, parents attitude, sleeping habits, teacher complaints, fall asleep with TV switch on and mother studies.

The exclusion criteria were neurodevelopmental pathology or sleep modifying therapy.

Statistical analysis used in this study was SPSS 16.0, X^2 or t-test, $p < 0.05$.

RESULTS

Materials

173 questionnaires were delivered in three schools for parents to fill.

The total sample of 91 children were considered. The median age of the children was 9 years (6 to 12). We exclude 82 children from the study, because the questionnaire was not correctly filled by the parents or was in the exclusion criteria.

The schooling of the parents was in average 6 year.

Among all questions, the answers for television habits were:

1. Equipment

- In each house
 - i. There are on average 3 TV sets (1 to 5, $n = 74$)

- ii. In 75% of cases there is a cable TV system ($n = 81$) and 9.7% satellite ($n = 62$)

- In the child's room

- i. 75% have TV in the bedroom ($n = 81$)
- ii. TV connected until falling asleep: 33% of the cases ($n = 78$)

2. Time spent

- During the week

- i. Day - 1h 54m
- ii. Night - 1h 26m
- iii. Total - 3h 20m

- On weekend

- i. Day - 3h 17m
- ii. Night - 2h 2m
- iii. Total - 5h 19m

The average time is 23 hours per week

3. Preferred programs: The students respond was:

- Preferred TV program ($n = 72$)
 - i. Cartoons (66%)
 - ii. Soap operas (12.5%). This subject increase with age and is more frequent in girls rather than boys, T-test, $p = 0.011$, ($n = 72$)

4. Parents attitude

- They teach the children, the rules for TV use in 78% of cases ($n = 82$)
- They type of program that the child can see (54.9%)
- They inform the quantity of daily time spent watching TV (36.6%)

- They validate the day they can watch TV (29.3%)
 - The need to request permission to turn on the TV (17.1%)
 - 93.9% of the parents reported explaining program content to children (n = 66)
 - The children fall asleep with the TV connected (n = 81) and their parent's attitude in this situation was:
 - i. It is not a problem (45%)
 - ii. Does not influence children's sleep (32%)
 - iii. Is good for the children (6%)
5. Sleeping habits
- Total hours of sleeping
 - i. During the week: 10.1h
 - ii. On weekend: 11.2h
 - Sleeping time
 - i. Resistance at bedtime: 40% (n = 81)
 - Increases with weekly TV load, X^2 , $p = 0.001$, $n = 81$
 - Associated with the habit of falling asleep with TV connected, X^2 , $p = 0.003$, $n = 77$
 - ii. The time the child takes to fall asleep (n = 80)
 - <15m - 45%
 - 15 to 30m - 41.2%
 - 30m to 1h - 6.2%
 - > 1h - 7.5%
 - iii. Sleep disturbances
 - iv. Frequent nightmares: 7% (n = 80)
 - Related with more times TV load at night, during the week, T-test, $p = 0.02$, $n = 55$
 - More frequent in females, X^2 , $p = 0.006$, $n = 77$
 - Daytime tiredness
 - i. Noticed by parents
 - Frequent signs of tiredness or sleep: 20% (n = 82)
 - Related to night awakenings, X^2 , $p = 0.048$, $n = 66$
 - ii. Noticed by the teacher
 - Excessive sleepiness of the child: 2.6% (n = 76)
 - Lack of attention in class: 39% (n = 82)

Both associated with the presence of TV in the room, although not statistically significant
6. Increase teacher complaints regarding lack of attention is related to more than 14h of TV, X^2 , $p = 0.049$, $n = 82$
- This result is statistically significant and is related with:
- Somnolence referred by the teacher
 - Frequency of sleep disturbances
 - Daytime decreased care noticed by parents

7. Fall asleep with TV switch on

- Relationship with sleep duration?
 - i. Highest weekly TV load, T-test, $p = 0.002$, $n = 50$

8. Mother studies

- Only primary school
 - i. More times on TV (>14h), X^2 , $p = 0,036$, $n = 78$
 - ii. They saw less children program, X^2 , $p < 0,001$, $n = 69$
 - iii. Greater difference between the number of hours of sleep on weekdays and at the weekend, T-test, $p = 0.041$, $n = 73$

DISCUSSION

The results suggest that the school students see too much TV. The relationship between excess TV and lack of attention, sleep disorders like difficulty in falling asleep, nightmares, night awakenings are statistically significant.

The parents don't give important that their children have TV in room. On the other hand, the use of TV has few rules. The level education of the mother (less studies), also is responsible for increase hours watching TV.

The parents considered that TV in the room, is a way to encourage sleep.

If we compared our results with studies already performed, the samples used are different, but mostly they agree the TV has a negative impact for students when the time of using is excessive. Countries like India, they have the increased perception that TV is a cause of sleep problems. It was a surprise, that in USA, only 6.5% attribute negative effect to TV.

The reduce sample, not validated questionnaire, survey completed by parents, subjective evaluation, filling errors and uncontrolled variables are the limitations of our study.

Although our data was not significant, these results are important to clarify better the impact of TV in the student population [1-10].

CONCLUSIONS

TV habits of this student population are likely to be excessive.

Parents need to be alerted to the impact of inappropriate TV use, may influence their children's sleep and school learning.

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