

Factors associated with excessive TV viewing in school children of Wah Cantt, Pakistan

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Objective: We studied associations among demographic, environmental and parental variables and TV viewing among school children in community of Wah Cantt, Pakistan.

Methodology: Parents of school children (3-12 years) completed a questionnaire about TV viewing and associated variables (demographic, environmental and parental). Excess TV viewing was defined as >2hours on weekdays and >4hrs on weekends.

Results: Participants were 287 parents of school children of Wah Cantt (one public and one private school). 57.8% parents reported excess TV viewing. Such practice was associated significantly with male gender, older age, nuclear

family and presence of TV in bedroom. Eating meals while watching TV was reported by 68% and 8% had >1 TV. Parental TV time >2hrs/day was associated with excess TV viewing in children, while parental rules decreased this time. Family income, parental education and working status of mother had no significant relation with TV viewing.

Conclusion: Parental factors are most important modifiable variables affecting child's TV viewing. Therefore, parent oriented interventions should be designed to develop healthy TV viewing in children. (Rawal Med J 2014;39:323-326).

Key words: School children, television, parents, screen time.

INTRODUCTION

In the modern era of information technology, television (TV) has assumed central roles in our children's daily lives. The media has demonstrated strong positive and negative effects on children. Television can be a resource of knowledge for children but issue of excessive TV watching may be associated with health problems. American Academy of Pediatrics recommends no TV for children under 2 and fewer than 2 hours per day for older children.¹ Unfortunately, in many households world over TV watching in children is not meeting these guidelines. An American study reported that >90% children started TV watching <2 years of age.² A Canadian survey reported TV watching of 2-5 hours in approximately 25% of children.³

Developing countries like Pakistan and especially urban families are also experiencing similar effects but unfortunately no data is available regarding screen time of Pakistani children. However, TV viewing of more than 2 hours has been reported in a significant proportion of children in India.⁴⁻⁶ The effects of excessive TV watching on social, developmental and physical health of children have

been extensively studied.⁶ These effects are short term and long term as screen time habits formed in childhood have impact on future health and are associated with poor health outcomes in later life.^{7,8} Therefore, it is important to educate parents regarding evidence based interventions to encourage healthy TV viewing in their children. The aim of this study was to look at the TV watching practices of school age children in our community and determine various factors associated with such practices.

METHODOLOGY

In this study, data were collected from January 2014 to February 2014 and parents of school going children of age 3 years to 12 years in Wah Cantt, Pakistan were included. We selected two schools; one was a government school and other a private school. Approval of hospital Ethical Committee was obtained before starting data collection. A structured questionnaire was sent to parents which was self-administered, printed in Urdu as well as in English and focused on variables like: Demographic variables of child and family like family structure,

income, working status of both parents, education of parents, presence of computer and gaming console in the household, TV watching practices and attitudes of parents as well as children like screen time of parents and children, parental rules regarding TV watching, eating meals in front of TV and Physical and environmental variables like presence of TV in bed room of children, presence of more than one TV sets in the house.

A Canadian Health Survey⁹ was consulted while development of questionnaire. The questionnaire was accompanied by pre-stamped pre-addressed envelope and parents filled them anonymously. The primary outcome variable was TV watching time of children, referred to as TV time in this article. Excessive TV viewing was defined as TV time >2 hours on week days and >4 hours on weekends. Data was analyzed using SPSS version 10.

RESULTS

A total of 750 questionnaires were sent. We received 323 (43.06%) responses. Incomplete questionnaires (11.1%) were excluded and finally 287 questionnaires were analyzed. The demographic feature of study cohort and their percent frequencies are shown in Table 1. Majority of parents (98.2%) reported household access to cable TV. On the other hand computers were present in 57% houses. 27.8% parents reported the usage of some sort of gaming consoles. More than one TV set was present in 8% households.

Table 1. Demographic variables in study population.

Variable	Total responses n=287(%)	Excessive TV time n= 166 (57.8%)	Appropriate TV time n = 121 (42.2%)	p value
Male gender	153 (53.5%)	96 (57.8%)	57 (47.1%)	0.02
Age (years)				
3-5	9232.0%	5433.5%	3831.4%	0.08
5-7	7927.5%	4125.4%	3831.4%	0.08
7-12	11640.4%	71 44.0%	4537.1.5%	0.04
Family structure				
Nuclear	15252.9%	10361.9%	4940.4%	0.001
Joint	13547.1%	63	7259.5	0.001
Working mother	11941.4%	6741.6%	5242.9%	0.07
Monthly income				
<15000 Rs.	130	7244.7	5847.9	0.06
15000-30000 Rs.	119	6741.6	5242.9	0.08
>30000 Rs.	38	2716.7	119.09	0.06
Parental education				
< Metric	114	6842.2	4638.01	0.06
Metric-graduate	121	7043.4	5142.1	0.08
Masters	52	3219.8	2016.5	0.07

Excess TV watching reported by 57.8% of parents. The analysis of parental knowledge about TV time of children showed only 3% of parents were aware of medical recommendations regarding this issue. 71% allowed children the TV time because they considered that the environment outside the house was not safe for outdoor physical activities. Others (31%) reported TV time as a relaxation much needed by children after long study hours. 27% considered TV viewing with children good for family bonding. 61% parents reported watching TV along with children for at least 2hours. Majority of parents (81%) believed in the importance of rules for TV time. When asked about eating meals while watching TV, 68% parents reported eating at least one meal in front of TV on 5 out of 7 days of a week (Table 2).

Table 2. Parental and environmental variables seen.

Variable	Excessive TV time	Appropriate TV time	p value
Parental rules	63 39.1%	65 53.7%	0.001
Parental TV time >2 hrs/day	78 48.5%	45 37.1%	0.02
TV in bedroom	50 31.1%	24 19.6%	0.01
Eating meals in front of TV	58 36.2%	31 25.5%	0.03

Excess TV time was significantly associated with male gender, age >7 years, TV viewing while eating meals, nuclear family, parental TV viewing >2hours/day and presence of TV in bedroom. Appropriate TV viewing time was most significantly associated with presence of parental rules for screen time of children ($p<0.001$). Parental education, working status of mother and socioeconomic status of family had no significant association with TV time.

DISCUSSION

According to Gallup Pakistan 2009 report 52% of Pakistani households have a TV set.¹¹ PEMRA reported 8 million Pakistanis watch cable or terrestrial TV networks.¹² Our study also reflected the trend showing 96.2% of families belonging to every socioeconomic class own at least one TV set. Excess TV viewing was a phenomenon shared alike regard less of economic resources of family or

parental education. Similarly, the knowledge of medical recommendations for screen time was scarce among parents with all educational backgrounds.

Researchers all over the world have studied impact of screen time on pediatric health in terms of obesity, sleep time and physical activity.^{13,14} A study from Canada found the parental factors like parental screen time, employment status and parental rules very important in limiting screen time in children.^{15,16} Our study also highlighted the association of healthy TV watching with parental rules for screen time. Another study from Korea showed the association of screen time with male gender and working mother.¹⁷ In the present study, TV viewing was seen in male gender but the working or non-working mother did not significantly affect children's screen time. A study of screen time in Italian school children showed increased screen time with increasing age.¹⁸ Our finding was also similar for relationship of age with TV viewing and children in the age group 7-12 years had maximum frequency of excessive TV viewing. Spanish researchers found the influence of environmental and sociocultural factors to be important for screen time of Spanish school children but reported parental factors to be most important for this practice.¹⁹ The influence of parental factors is also clearly demonstrated in present study.

Practices like placing a TV set in bedroom or eating meals while watching TV were also found to be largely prevalent, as reported from developed countries.^{15,16,18} This emphasizes the global nature of such practices. The nuclear family system was found associated with excessive screen time. This finding is a new one and is not included in any past study according to our knowledge. As the phenomenon of joint family structure is a characteristic of Pakistani culture its influence on children's TV viewing practices is a new association observed for the first time.

We found that screen time trends and practices in households of WahCantt's urban community were following almost the same pattern seen in western and European countries. Indian studies have also recognized these factors.⁴⁻⁶ The parents considered it a safe and sometimes only safe entertainment and

activity for their children. Parents were concerned about content of TV programs but not about over all TV time.

The study limitations include a smaller sample size and limited number of variables studied. The impact of screen time on physical activity, sleep time, weight and intellectual development was not studied. The contribution of computers, gaming consoles and cellular phones was not considered separately from TV viewing. We feel that these findings are more or less reflective of trends in other cities of Pakistan, however large scale studies are required to confirm this impression.

CONCLUSION

Screen time more than the scientific recommendations is prevalent in community of WahCantt. Parents in the community have little knowledge about recommended screen time limits. Parental screen time, nuclear family, eating meals while watching TV and TV in bed room are practices associated with increased screen time while parental rules was the only factor significantly associated with limited screen time. The association of healthy TV viewing trend with joint family system is a new observation. The increasing prevalence of excessive screen time and the need of public education on this aspect should be recognized by Pakistani pediatricians and other partners in child health.

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