



Television viewing habits and their effects among high school children in the urban field practice area of mamata medical college

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Abstract:

Background: Television viewing is a boon/bane is an ongoing controversy. Though it is an important current area of research, studies in this aspect are limited. To fill up the lacunae in the current knowledge in this regard, the present study has been undertaken with the following objectives. **Aims:** To study the television viewing habits among high school children, to know the beneficial and harmful effects of television viewing. **Settings and Design:** Khammam Town, cross sectional study. **Methods and Material:** 450 children in between 13 and 15 years of age, of both sex, studying in different schools were selected in Khammam town by simple random technique. Information was collected in a prestructured proforma by interview method. The data thus obtained was subjected for analysis by using appropriate statistical tests. **Statistical analysis:** Data was statistically analysed by using Statistical Package for Social Sciences (SPSS). P value <0.05 was considered to be statistically significant. **Results:** Out of 450 children 251 were Male and 199 were Female. Average time for TV viewing was 1.96 hours \pm 1.0 /day with a range from 1 to 6 hours /day. Headache (12.6%), eye strains (11.5%), sleep disturbances (10.8%), neck pain (0.4%), nail biting (8.6%), etc were the health disturbances due to Television viewing. **Conclusions:** Duration of TV viewing had direct role in causing headache and eye strain; but it had no significant effect on sleep disturbances and school performance.

Key-words: Mood Changes, TV viewing, Outdoor games

Introduction:

In the last few years participative Television (TV) has seen the upward growth trend with innovative technologies being deployed by broadcasters [1]. Of the modern day inventions, I think the advent and spread of television channels across the globe has subtly changed the contours of social relationship. The literature on the effects of TV viewing are less. Very few studies are done in Tribal district like Khammam, where people from all social category come together for their education. Man is a social animal and socialising plays an important role in keeping ourselves concerned about others in neighbourhood and close relations. Television is the window of the world. The glamour and glory of television has attracted all sectors of society. It has literally hypnotized the children. Today the beneficial and adverse effects of television is a matter of great concern. The harmful effects have been often postulated and reported. But no serious scientific attempts have been made to confirm this. Television viewing is quite

random these days. People are more addicted to it rather than giving time to their dear ones. Its getting quite serious and people should understand, it is affecting their social life and thus, they should limit their viewing [2]. The number of TV owning homes has come a long way, more than 100 million TV households have been accounted for so far. The cable operators have done a good job by building up a cable and satellite penetration of 90 million homes all over India. Most viewers in future will, however, be watching their TV mainly via cable, terrestrial and direct to home television delivered via satellite. Cable TV infrastructure will have improved.

From the past few decades television has crawled to Indian homes. Now the television has its firm roots in many houses across the length and breadth of the country. Accessibility to television is on increase day by day and has been accepted by the society. Varieties of programmes viz News, Sports, Educative, Entertainment, Cartoon, etc are available round the

clock. These are especially designed to attract all sectors of society. Many targeted programmes and commercials in television are drawing more number of children to its folds. Adolescent high school children are spending more time in front of TV by foregoing their routine activities. The impact of television, a powerful media, used by very large number of children is a matter of great concern to psychologists, community health personnel, pediatricians, educationalists, parents, planners and social scientists worldwide [4]. Change in lifestyle, low school performance, behavioral abnormalities, sleep disturbances have been associated with the television viewing. Baseline data regarding television viewing habits like time spent in viewing, distance from the television, programme selection etc are crucial which need to be understood to formulate effective awareness strategies. With the intention of contributing new scientific factors regarding Television viewing habits and their effects among high school children, the present study has been undertaken. No such studies have been done on the children of Adolescent age group till now Khammam district, regarding the impact of television. This situation has prompted to undertake this study in Khammam town, where large number of educational institutions are established.

Subjects and Methods:

It is a Cross-sectional observational study. Source of Data: High Schools of Khammam town. Study period: 1st November 2010 to 31st May 2011. Educational Department authorities were consulted to obtain the data regarding high schools in Khammam town. The purpose of the study was explained and their co-operation was solicited. According to the sources from the Educational department of Khammam town, there were 45 High schools which were categorized as Government, Aided, and Unaided schools. From each category three schools each of Government, Aided, and Unaided High school was selected based on simple random sampling procedure. From each school 50 children were selected for the study by systematic random sampling procedure.

All the selected students were in between 13 and 15 years studying from 8th to 10th standard. So a total of 9 schools were selected for the study. Thus the sample represents the schools of Khammam town, categories and students of both sex. Inclusion Criteria: All the children aged between 13 to 15 years, of both sexes, studying in high school of Khammam district. Children who are exposed to TV viewing for at least 3 years. Exclusion criteria: All children below 13 years and above 15 years. Children who are suffering from proved ophthalmic and psychological problems.

Children who are not at all exposed to television viewing. Children who were not willing to participate in the study. Selected schools were visited and the consent and co-operation for the study was solicited from the concerned authority. Before starting the actual study, a pilot study was conducted. Each selected student was interviewed in detail regarding TV viewing. The data collected was entered into a pre tested, pre structured proforma which was especially designed for this study.

Results:

A total of 450 children in between 13 and 15 years, of both sex were the subjects of this study. Out of 450 children studied, 251 children were male and 199 were female. Male female ratio was 1.26:1. Of the enrolled students 136, 160 and 157 students were of 13, 14 and 15 years respectively. When duration of TV viewing is analysed and it is observed that 83.33% (Male: 200 ; Female: 175) of children are viewing TV for ≤ 2 hours / day and 17% for more than 2 hours /day. Since p value is 0.062 there is no significant association between duration of TV viewing and gender. [Table 1]

A large number (69.78%) of children were viewing TV with their family members. However (26.89%) children were viewing TV in isolation. [Table 2]

Nearly 75% (336) of children are missing one or the other daily routine activities because of TV viewing. A large number (34.44%) of children told that they are missing outdoor games. While a few (7.78%) are missing the schools / tuitions. Children missing social mixing (15.78%) and even skipping the meals on time (16.67%) because of TV viewing in this study is a matter of concern. [Table 3]

A good number of students had physical problems like headache (12.6 %), eye strain (11.5 %), over weight (1.8%), neck pain (0.4%). Social and behavioural problems are observed here in very less number of children. All these observations warrants to focus on this issue which is a matter of concern for sociologists, psychologists, parents, educationalists, and community health personnel. [Table 4]

Duration of TV viewing by children varied from 1 to 6 hours/day (average 1.96 hours/day). The problems like headache, eye strain and sleep disturbances are studied on the background of duration of TV viewing. Headache and eye strain were increasing with the corresponding increase in duration of TV viewing. But surprisingly sleep disturbance was independent with duration of TV viewing. There is highly significant association between duration of TV viewing and Headache ($p < 0.001$), Eye strain ($p = 0.001$) and Sleep disturbance ($p < 0.001$). [Table 5]

Table 1: DURATION OF TV VIEWING

DURATION OF TV VIEWING (in hrs /day)	MALE (251) n (%)	FEMALE (199) n (%)	Total (450) n (%)
≤2 hours	200 (79.68)	175 (87.94)	375 (83.33)
> 2 to 4 hours	36 (14.34)	16 (8.04)	52 (11.56)
> 4 to 6 hours	15 (5.98)	8 (4.02)	23 (5.11)
Total	251	199	450
Male vs Female	$\chi^2 = 0.555, P = 0.062, NS$		

Figures in parenthesis indicate column percentages

Table 2: TV viewing practices of children

PRACTISES	MALE n (%)	FEMALE n (%)	Total n (%)
In Isolation	67 (26.69)	54 (27.14)	121 (26.89)
With Family members	174 (69.32)	140 (70.35)	314 (69.78)
With friends	10 (3.99)	5 (2.51)	15 (3.33)
Total	251(100)	199 (100)	450 (100)

Table 3: DAILY ACTIVITIES MISSED BECAUSE OF T V VIEWING

ACTIVITIES	MALE n (%)	FEMALE n (%)	Total n (%)
SCHOOL/TUITIONS	24 (9.56)	11 (5.53)	35 (7.78)
MEALS ON TIME	44 (17.53)	31 (15.58)	75 (16.67)
GAMES	79 (31.47)	76 (38.19)	155 (34.44)
SOCIAL MIXING	44 (17.53)	27 (13.57)	71 (15.78)
DON'T MISS	60 (23.91)	54 (27.13)	114 (25.33)
Total	251(100)	199 (100)	450 (100)

Figures in parenthesis indicate column percentages

Table 4: HEALTH DISTURBANCES IN RELATION TO TV VIEWING

PROBLEMS		n	%
PHYSICAL PROBLEMS	Frequent Headaches	57	12.6
	Eye strain	52	11.5
	Overweight	8	1.8
	Neck pain	2	0.4
SOCIAL PROBLEMS	Paucity of time	28	6.2
	Lacking in school performance	15	3.3
BEHAVIORAL PROBLEMS	Inferiority complex	9	2.0
	Dreams	56	12.4
	Nightmares/screaming spells	1	0.2
	Imitating/Mimicking	18	4.0
	Nail biting	39	8.6
	Emotional outbursts	33	7.3
	Sleep disturbances	49	10.8

Changes in academic performance of children was assessed from past 3 years. This was correlated with their duration of TV viewing. It can be seen that performance showed decreasing tendency with the

increase in duration of TV viewing. However there is no significant association between performance of a student and duration of TV viewing ($p=0.32$). [Table 6]

Table 5: RELATIONSHIP BETWEEN DURATION OF TELEVISION VIEWING AND HEALTH PROBLEMS (Headache, eye strain and sleep disturbances)

DURATION OF TV VIEWING (hrs/day)	TOTAL n (%)	HEADACHE n (%)	EYE STRAIN n (%)	SLEEP DISTURBANCES n (%)
≤2 hours	375 (100)	23 (6.2)	34 (9.1)	30 (7.9)
> 2 – 4	52 (100)	25 (48.1)	12 (23.1)	8 (15.4)
> 4 – 6	23 (100)	9 (39.1)	6 (26.1)	11 (47.7)
Total	450	57 (12.6)	52 (11.5)	49 (10.8)
χ^2		88.88	14.0	37.0
p value		<0.001 HS	=0.001 HS	<0.001 HS

Figures in parenthesis indicate row percentages

Table 6: EFFECT OF TELEVISION ON ACADEMIC PERFORMANCE

DURATION OF TV VIEWING (hrs/day)	TOTAL	ACADEMIC PERFORMANCE		
		DECREASED	INCREASED	NO CHANGE
≤2 hours	375	53	20	302
> 2 – 4	52	6	5	41
> 4 – 6	23	6	2	15
Total	450	57	52	49

$\chi^2 = 4.72$

$p = 0.32$

Discussion:

In Children's view beneficial and harmful effects of TV was quite interesting. Large number of children viewed TV as beneficial. 82% opined that TV has both beneficial and harmful effects. For only 4% (18 children) TV was harmful. Restriction of TV viewing was more for males. This may be due to the fact that parents want male children to divert their time on studies. Health problems encountered can be casually associated with TV viewing. This may be related with the factors like distance from TV, duration of viewing, etc. Here an attempt has been made to view the problems on some of these backgrounds. In order to get uniform representation from different types of schools, equal number of children are selected from 3 types of schools. So 150 students were selected from Government, Aided and Unaided schools.

A study in Pakistan shows average TV viewing time of 2.2 hours per day [3]. An Indian study shows average TV viewing time of 2.5 hours per day [4]. These observations suggests the possibility of variation in time spent in front of TV by children from place to place. Such observations are helpful in formulating appropriate intervention strategies. Duration of TV viewing was more in males than in females. However the difference was insignificant. Casual association between TV viewing and physical, social, behavioural problems in children are in literature. In this study the respondents expressed different physical, social and behavioural problems. When children were asked what they feel after watching their favorite telecasts, 43.7% (198) told that their mind will be diverted from studies towards the programmes. Emotional feelings was the experience of 52.3% of children. It is interesting to note that in 54% of

whatever is telecasted. In a similar study like this researcher have found 10% of children having headache and 0.8% having eye strain [4].

This study establishes the association between the duration of TV viewing and the problems enhanced accordingly. In a similar study there was no significant correlation between increase in duration of TV viewing hours and disturbed sleep. There was no difference in the average amount of time spent on studying by children who had and who did not had television in their homes in a study. To view their favourite programmes those children who had television adjusted their study timings accordingly indicating that television does not have a displacing effect on children's study [5].

When the distance of TV viewing in relation with the headache and eye strain is analysed, it was found that headache was more (14.5%) in children who are viewing TV in non-recommended distance, as against 14 children (8.9%) who were viewing at recommended distance. However there was no much difference in eye strains between, the viewers viewing at recommended and non recommended distance. The relation between the distance of viewing and headache, eye strains need to be confirmed by large scale studies which is highly helpful to give the guidelines regarding proper distance of TV viewing. In Children's view beneficial and harmful effects of TV was quite interesting. Large number of children viewed TV as beneficial. 82% opined that TV has both beneficial and harmful effects. For only 4% TV was harmful.

Despite overall close monitoring of television-viewing habits, one quarter of the parents reported the presence of a television set in the child's bedroom. The television-viewing habits associated most significantly with sleep disturbance were increased daily television viewing amounts and increased television viewing at bedtime, especially in the context of having a television set in the child's bedroom [6]. Out of 450 children responded about 64% revealed that they had parental objection for TV viewing. Parental objection was encountered by 66% boys as against 61% girls. Restriction of TV viewing was more for males. This may be due to the fact that parents want male children to divert their time on studies. When a sex wise reaction was analysed, it was interesting to note that 35.2% males and 22.9% females become wild. 45.2% males and 50% females get depressed as a reaction for parental objection for TV viewing. However only 22.8% had no mood changes. In this study more than 77% of children showed extremes of mood changes as a reaction to parental objection for TV viewing. This situation calls for a necessity to formulate guidelines to the parents

TV in a proper manner.

Parental objection towards TV viewing habit of children is a well known matter. Even the educationalists and sociologists advise less TV viewing for children. In this study 56.3% children are determined and willing to reduce TV viewing in future. Contrarily 14.3% have determined to increase TV viewing. While 29.4% want to continue at same level. Entertainment and general knowledge along with the time pass was the reason for determining to increase TV viewing for children. While TV related health problems and parental objection and giving more attention to studies were the reasons to reduce TV viewing. The most affected sleep behaviors were bedtime and awakening time on the weekends, the duration of sleep during the weekdays, and sleep disorders of bedtime resistance and sleep anxiety. Television viewing ≥ 2 hours/day on weekends, with a prevalence of 48.8%, was the predominant risk factor for all sleep disorders with the exception of the sleep duration disorder [7].

Conclusions:

Duration of TV viewing had direct role in causing headache and eye strain; but it had no significant effect on sleep disturbances and school performance.

Recommendations:

Counselling may be given to the students who watch TV about the adverse effect on health if TV is seen for more than 2 hours per day.

Conflict of Interest: Nil

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Ethical Committee Approval: Approved from Institutional Ethical Committee

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