A Study to Assess the Effectiveness of E-Module Regarding Knowledge for the Prevention of Complication of Screen Time among Parents of School-Going Children in Selected Community of Greater Noida, Uttar Pradesh

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Abstract: _Introduction: In the past few years, technological advancement occurs and it increases the accessibility and usage of electronic tools such as android phones, laptops etc. Spending time on television, android phone etc, known as screen time. Aim: To assess the pre-test and post-test knowledge regarding the prevention of the complication of screen time among parents of school-going children. Methods: A quasi-experimental research design was carried out among 60 parents of school-going children of selected community of Greater Noida which were divided into two groups Experimental (n_1=30) and Control (n_2=30). Probability Simple Random sampling techniques was used. Data collection was done by using questionnaires contains two sections Section I: Demographic variables and Section II: Self-administered structured knowledge questionnaires tool. Result: The study showed that Pre-test, In Experimental group, the knowledge score was assessed 21 (70%) parents had Very Good knowledge 9 (30%) parents had Good knowledge. In control group, the knowledge score was assessed 1 (3.33%) parents had Excellent Knowledge, 15 (50%) parents had Very Good knowledge, 11 (36.77%) parents had Good knowledge and 3 (10%) parents had Fair knowledge. Post-test, In Experimental group, the knowledge was assessed 12 (40%) parents had Excellent, 18 (60%) parents had Very Good knowledge. In control group, the knowledge score was assessed 2 (6.77%) parents had Excellent Knowledge, 21 (70%) parents had Very Good knowledge, and 7 (23.33%) parents had Good knowledge. Conclusion: The study result shows that improved in knowledge among experimental group as compared to control group after intervention. Thus it was proved that E-Module was effective._

Keywords: E-Module, Knowledge, Screen time, Parents of school going children

1. Introduction

In the past few years, technological advancement occur and it increase the accessibility and usage of electronic tools such as android phones, laptops etc. Spending time on television, android phone etc, known as **screen time**.1

Parents play an important role in improving the health of their kids. Spending more time in-front of screen has led to several serious issues and affects the health of the children. Many Health organizations including **World Health organization (WHO) and American Academy of Pediatrics (AAP)** [2] has approved some guidelines for screen time.

In today's era advancement has taken place by electronic tools. Screen time is most crucial or prime for all age groups, especially for children and adolescents. Technologically, Colorful pictures and sound attracts the children and provides most effective temporal and spatial transmission of reality to its viewers. Due to its wide spread network, it has become a major source of information and entertainment for a large numbers of our children.3

Screen time becomes unhealthy when your child is stick and spending most of the time on screen. If your child's screen time drops outside the suggested time according their age, you may notice some concerning signs. Children and teens that spend too much time in front of a screen may seem: lonely, sad, overly tired, stressed or fearful and isolated from friends or family.4 Compulsive use of electronic gadgets has shown association of screen time with emotional, hyperactive and conducts problems along with a negative impact on academic performance.5

A cross sectional observational study was conducted in Tamil Nadu to assess the awareness and attitude among parents of primary school students towards screen time in children. Data collected using pre-designed questionnaires were analysed using suitable statistical methods.134 parents were participated, 48.5% were fathers and 51.5% mothers. Majority (77.6%) were in the age group of 24 to 35 years. Only 3.7% of the participants were aware of the exact screen time guidelines in children.93.3% of the participants felt that it was important to limit screen time in children.84.3% of the participants believed that the content of screen time should be controlled in children.82.1% of parents felt that they should co view media with their children.65.7% of the participants believed that the ideal screen time in children per day is 1 to 2 hours. This study concluded that majority of the parents were aware of the adverse effects of increasing

screen time and want to establish healthy screen time behaviors in children.6

2. Method

A quasi-experimental research design was used in this study. The samples for the study were parents of school-going children of selected community of Greater Noida. Total samples were 60 which were divided into two groups Experimental (n_1=30) and Control (n_2=30). Data collection was done by using questionnaires contains two sections Section I: Demographic variables and Section II: Self-administered structured knowledge questionnaires tool. Data was collected via goggle form. First Pre-test was given to both the groups then Intervention (E-Module) for experimental group. For Control group there was no intervention and then Post-test was taken. Data Analysis and Interpretation was done by using Inferential and descriptive statistics. The data was analyzed with Chi-square test using SPSS 20.0.

3. Result

The mean score on level of knowledge in Experimental group was 19.3 in pre-test and 23.5 in post-test. The standard deviation was 2.135 and 2.430. The mean difference was 4.2. The calculated "t" value was 14.44. The mean score on level of knowledge in Control group was 18.2 in pre-test and 20.2 in post-test. The standard deviation was 3.694 and 3.067. The mean difference was 2. The calculated "t" value was 7.49. There was significant association between knowledge scores with their selected demographic variables i. e, Screen time span (in a day) at level $p<0.05$ and others demographic variables i. e, Age (in a year), Gender, Religion, Monthly Income, Family status, Qualification, Occupation and Source of Information showed no significant association at level $p<0.05$.

Table 1: Frequency and Percentage of Demographic Variables n_1+n_2= 60

S. No.	Demographic variables	Experimental Group (n_1=30)		Control Group (n_2=30	
		f	%	f	%
1	**Age [in Years]**				
	26-35 yrs	20	66.66	15	50
	36-45 yrs.	7	23.33	11	36.66
	46-55yrs.	2	6.66	2	6.66
	56 and above	1	3.33	2	6.66
2	**Gender**				
	Male	10	33.3	15	50
	Female	20	66.6	15	50
3	**Religion**				
	Hindu	15	50	15	50
	Islam	10	33.33	8	26.66
	Christian	3	10	5	16.66
	Others	2	6.66	2	6.66
4	**Monthly Income**				
	Rs.10, 000-Rs.19, 999	1	3.33	2	6.66
	Rs.20, 000-Rs.29, 999	4	13.33	3	10
	Rs.30, 000-Rs.39, 999	10	33.33	15	50
	Rs.40, 000 and above	15	50	10	33.33
5	**Family status**				
	Joint family	5	16.66	5	16.66
	Extended family	10	33.33	5	16.66

	Nuclear family	15	50	20	66.66
6	**Qualification**				
	High School	2	6.66	2	6.66
	Intermediate	3	10	10	33.33
	Diploma/Graduates	15	50	10	33.33
	Post-graduate	10	33.33	8	26.66
7	**Occupation**				
	Unemployed/	10	33.33	10	33.33
	Housewife	10	33.33	15	50
	Private sector	5	16.66	3	10
	Government Professional	5	16.66	2	6.66
8	**Source of Information**				
	Mass media	10	33.33	10	33.33
	Friends and Relatives	12	40	15	50
	Health care professionals	5	16.66	4	13.33
	Others	3	10	1	3.33
9	**Screen time Span (in a day)**				
	1 hr.	2	6.66	1	3.33
	2 hrs.	8	26.66	9	30
	3 hrs.	10	33.33	10	33.33
	4 hrs. or more	10	33.33	10	33.33

Table 2: Frequency of Knowledge regarding the prevention of the complication of screen time among Parents of School-Going Children, n_1+n_2= 60

Level of Knowledge	Score	Experimental Group (n_1=30)		Control Group (n_2=30)	
		Pre-test (f)	Post-test (f)	Pre-test (f)	Post-test (f)
Excellent	25-30	-	12	1	2
Very Good	19-24	21	18	15	21
Good	13-18	9	-	11	7
Fair	7-12	-	-	3	-
Poor	0-6	-	-	-	-

We concluded that During **Pre-test**, In Experimental group, the knowledge score regarding screen time among parents of school-going children was assessed 21 (70%) parents had Very Good knowledge 9 (30%) parents had Good knowledge. In control group, the knowledge score regarding screen time among parents of school-going children was assessed 1 (3.33%) parents had Excellent Knowledge, 15 (50%) parents had Very Good knowledge, 11 (36.77%) parents had Good knowledge and 3 (10%) parents had Fair knowledge.

During **Post-test,** In Experimental group, the knowledge score regarding screen time among parents of school-going children was assessed 12 (40%) parents had Excellent, 18 (60%) parents had Very Good knowledge. In control group, the knowledge score regarding screen time among parents of school-going children was assessed 2 (6.77%) parents had Excellent Knowledge, 21 (70%) parents had Very Good knowledge, and 7 (23.33%) parents had Good knowledge.

A cross sectional observational study was conducted in Tamil Nadu to assess the awareness and attitude among parents of primary school students towards screen time in children.134 parents were participated, 48.5% were fathers and 51.5% mothers. Majority (77.6%) were in the age group of 24 to 35 years. This study concluded that majority of the parents were aware of the adverse effects of increasing screen time and want to establish healthy screen time behaviors in children.6

4. Conclusion

Based on the analysis of the findings of the study, the following inferences were drawn. There was a significant improve in knowledge among experimental group as compared to control group after intervention E-Module was provided. Thus it was proved that E-Module was effective. Therefore, this intervention should be promoted and implemented to all Parents of School-going Children.

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