



EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING SIDE EFFECTS OF SMARTPHONE USAGE AMONG CHILDREN (10-15YEARS)

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ABSTRACT

OBJECTIVES : To assess the side effects of smart phone usage among children studying in selected school of District Ghaziabad, to assess the knowledge of the students regarding side effects of smart phone usage, to provide STP on side effects of smart phone usage among children (10-15years), to find out the effectiveness of STP regarding side effects of smart phone usage among children (10-15years).

METHOD: The research design of this study is 'one group pretest post test' research design. 60 children between 10-15yrs of age were selected through stratified random sampling technique. The study was conducted at selected school of district Ghaziabad. Structured questionnaires were used for data collection.

RESULT: Collected data was analyzed by using inferential statistics. It was found that majority of children have moderate knowledge regarding side effects of smart phone usage. As regards the presence of side effects, psychological problems, due to smart phone usage, were highest among children followed by physical problems. Majority of children were having moderate side effects related to smart phone usage. The structured teaching program was proved effective after its implementation. The study revealed that there were no association between knowledge of children and socio- demographic variables.

KEYWORDS :

INTRODUCTION

In today's fast-moving and globalised world, it is almost impossible to imagine our day-to-day life without mobile phones. It is one of the most successful inventions of the 20th century, which has become a convenient means of communication. Modern mobile phones perform many other functions as well; they can substitute for such devices as music players, cameras, and organizers. Most of them also provide internet access and texting.

According to the **U.N. Telecom agency**, there were almost 6 billion cell phone users in the world, with almost 86 gadgets for every 100 people. There is nothing strange in this fact, as modern people need phones in all spheres of their lives – professional and personal. However we do not notice how much we depend on cell phones and what effects their excessive use might bring. Therefore, it is important to pay closer attention to these negative effects and weigh the consequences versus the benefits they bring to our lives. Almost 9 out of 10 children in the India now have a smart phone. While they can be beneficial in helping children stay in touch with worried parents, the health argument isn't so clear-cut. Smart phones are psychologically addictive. Unless we get control of the screens which now absorb so much of our kids' time, it will have harmful effects on them. Today's children are growing up in a radio-frequency environment that never existed in human history before. Mainly among teenagers, cell phones can cause headaches, decreased attention, shortness of temper, sleep disorders, and depression.

OBJECTIVES

1. To assess the side effects of smart phone usage among children studying in selected school of district Ghaziabad.
2. To assess the knowledge of the students regarding side effects of smart phone usage.
3. To provide STP on side effects of smart phone usage among children (10-15years).
4. To find out the effectiveness of STP regarding side effects of smart phone usage among children (10-15years).

METHODOLOGY

Research Approach: quantitative research

Research Design: one group pre-test post test

Settings of the study: Ayesha Public School Masoori, district Ghaziabad.

Population: children who were 10-15 years of age and studying in the selected school of district Ghaziabad and uses smart phone.

Sample: children studying in 5th - 8th class

Sample Size: 60

Sampling Technique: stratified random sampling technique

INCLUSION CRITERIA

- i. Children who were willing to participate in this research study and studying in selected school of district Ghaziabad.
- ii. Children who could understand Hindi & English language.
- iii. Children who were present at the time of data collection.

TOOLS AND DATA COLLECTION

Tool comprises of three sections:

Section A:

Socio-demographic characteristics of the sample comprises of 15 items which includes: age, gender, educational qualification of father and mother, occupation of mother, and father, duration of smart phone exposure, availability of personal smart phone, primary purpose of using smart phone, average duration of mobile phone usage per day, etc.

Section B (Assessment of Side Effects of Smart Phone Usage):

This section consisted of 17 items that were developed to assess the side effects of smart phone usage in children. It is further divided into two parts as assessment of physical hazards (7 items) and assessment of psychological hazards (10 items). The questionnaire was to be responded on two points as yes/ no. With a maximum score of 17 and minimum score of zero. Each positive aspect was scored as on and negative aspect was scored as zero.

Section C (Assessment of Knowledge Regarding Side Effects of Smart Phone Usage among Children):

This section comprises of 23 multiple choice items related to knowledge regarding side effects of smart phone usage among children (10-15yr of age). Each statement is followed four options and there is only one correct answer. Each correct response was given one mark and each no response or incorrect response was given zero. Total score range from 2-15.

RESULTS:

The major findings of the study are summarized as follows:

Section 1: Findings Related To Socio- Demographic Variables of the School Children

Analysis of demographic data revealed that the samples were distributed uniformly with 26.6 % students belongs to age group of 10 to 11 years; 23.3 % belongs to age group of 12 to 13 years; and 42 % belongs to age group of 14 to 15 years age. 26.6 % students study in 6th standard, 15 % study in 7th standard and 58.3% study in 8th standard. There were 28 (46.6%) males among the sample population, while 32(53.3%) were females. As regards the education status of mothers of

sample, half of them (50%) were illiterate , 20% of them were having primary education , 13.3% were having secondary education , and very few were gradates (10%) and post graduate (6.67%). As far as father's education status is concerned, 22(36.6%) were illiterate, 14(23.3%) were having primary education, 12 (7.7%) were having secondary education, 10(16.6%) were graduate and only 2(3.3%) were post graduate. Out of total samples, the fathers of 6(10%) samples were unemployed, 21(35%) samples were business man, 10 (16.6%) samples were having govt. Job, 13(21.6%) samples were having private job and 10 (16.6 %) samples were farmers. Majority of the mothers of sample i.e. 53(88.3%) were house wife, whereas very few were employed and having govt. Job (8.8%), private job (1.6%) and business (1.6%). Out of 60 subjects, majority of them i.e. 50(83.3%) sample subjects used smart phone whereas only 10 (16.6%) did not. Out of 60 subjects, half (50%) of the sample subject had personal smart phone, whereas other half (50%) did not had. Out of those who are not having personal phones, 13 (43.3%) uses their fathers phone, 5 (16.6%) uses mother's phone 2 (6.6%) uses friend's phone and 10 (33.3%) uses other family member's smart phone. With regard to average duration of smart phone usage, 33(55%) of samples use less than an hour, 16(26.6%) uses 1 to 2 hours, 3(5%) uses 2 to 4 hours and 8 (13.3%) are used more than 4 hours per day.

SECTION 2: Findings Related To Assessment of Side Effects of Smart Phone Usage among Children (10-15yrs of Age)

The range of obtained scores for side effects of smart phone usage was 1-10 with maximum possible scores of 17, with a mean of 9.31, median of 29, mode of 37 and standard deviation of 4.09.

- Among The Physical Hazards, the Most Frequently Occurring Problem Were Eye Strain (70%) And Headache (60%), Followed By Common Cold (50%), Tiredness (58.3%), Irritation, Hearing Problem (51.6%), Wrist Pain And Backache. (Table 1)
- Among The Psychological Hazards, The Most Frequently Occurring problem were lack of concentration, violent behavior and love to be alone(61.65), followed by degradation in studies(58.3%), skipping meals(56.6%), irritable behavior, feels lonely(48.3%), and feeling sleepy during day time (48.3%) respectively. (Table 1)
- Out of these two areas, the children had highest Mean Score (5.23) in Psychological Hazards which means that the psychological problems were highest among children followed by physical problems with a mean score of 3.8.
- 16.66% (10) children had mild health hazards, 63.33% (38) children had moderate health hazards and 20% (12) children had severe health hazards related to side effects of smart phone usage.

Table 1: Frequency and Percentage Distribution of Sample Subjects by Presence of Side Effects of Smart Phone Usage

N=60			
S. No.	Category Of Side Effects	Frequency (F)	Percentage (%)
I. Physical Hazards			
1.	Headache	36	60
2.	Eye strain	42	70
3.	Hearing problem	31	51.6
4.	Common cold	30	50
5.	Backache	27	45
6.	Wrist pain	28	46.6
7.	Tiredness	35	58.3
II. Psychological Hazards			
1.	Irritable behavior	29	48.3
2.	Feeling lonely	29	48.33
3.	Responds quickly to cell phone notifications	32	53.3
4.	Difficulty in sleep initiation	31	51.6
5.	Feeling sleepy in day time	29	48.3
6.	Skipping meals	34	56.6
7.	Lack of concentration in study	37	61.66
8.	Degradation In Academics	35	58.3
9.	Violent behavior	37	61.6
10.	Love to be alone	37	61.6

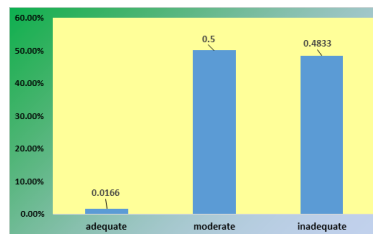
SECTION 3: Findings Related to Assessment of Knowledge of Children Regarding Side Effects Of Smart Phone Usage.

- The mean knowledge score of children regarding side effects of smart phone was 7.9 with median of 8, mode 5, range of score is 2-

15 and standard deviation is 10.86.

- Out of 60 sample subjects only 1 (1.66%) was having adequate knowledge, 30 (50%) were having average knowledge and 29 (48.33 %) were having inadequate knowledge regarding side effects of smart phone usage. (Figure 1)

Figure 1: Bar diagram showing percentage distribution and grading of knowledge score



SECTION 4: Findings Related To Assessment of Effectiveness of Structured Teaching Program on Knowledge Regarding Side Effects of Smart Phone Usage among Children

- The standard deviation of pre-test (10.86) is more than the standard deviation of post-test (3.4), therefore the STP regarding on knowledge regarding side effects of smart phone usage was effective.
- The Mean Knowledge Score of Pre Test Is 7.9, And Post Test Is 16.69. The Calculated T Test Value (0.99) at 0.05 level of significance is more than the Table Value (-10.71), which indicates that the Structured Teaching Program Was Effective. (Table 2)

Table 2: Mean Difference, Standard Deviation, Standard Deviation Difference, Degree Of Freedom and T-Test value

	Mean	Mean Difference	Standard Deviation	Standard Deviation Difference	df	T Value	N=60 Table Value
Pre Test	7.9	8.73	10.86	-7.46	59	0.99	-10.71
Post Test	16.63		3.4				

T test value= 0.99, t ≥ 0.05 level of significance

CONCLUSIONS

Majority of the samples belonged to 14 to 15 years of age with half of them having personal smart phone and majority of them using smart phone for less than an hour per day. As regards the presence of side effects, psychological problems, due to smart phone usage, were highest among children followed by physical problems. Among the children, majority of children were having moderate health hazards related to side effects of smart phone usage. As regards the level of knowledge, except one, all the students are having average and inadequate knowledge regarding side effects of smart phone usage. The structured Teaching Programme, on side effects of smart phone usage, was effective. Knowledge score of children was independent of selected demographic variable.

RECOMMENDATIONS

- A similar study may be replicated on large samples to validate and generalize its findings.
- A study may be conducted to assess the learning needs of smart phone users to prepare educational programmes on prevention of smart phone related health problem.
- A similar study can be conducted to identify smart phone side effects and smart phone related health problem through clinical assessments.
- Prevention of side effects smart phone can be emphasized in a similar study.

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