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Effectiveness of Audio Assisted Teaching Programme among Parents Regarding Smartphone Usage and Its Adverse Effects among Under Five Year Children in a Selected Schools at Aurangabad District

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Abstract: ***Aim of the study: To find the effectiveness of Audio Assisted Teaching programme among parents regarding Smartphone usage and its adverse effects among under five year children, Methods: 40 parents are selected by purposive sampling technique. Structured knowledge questionnaire were used to collect the data from parents. Descriptive and inferential statistics were used to analyze the data. Results: There is an increase knowledge scores in the post test compare to pre test.17.5% of parents had average knowledge, 70% had good knowledge and 12.5% had excellent knowledge in the post test whereas 7.5% of parents had poor knowledge, 80% had average knowledge and 12.5% had good knowledge. There is no significant association between pre test knowledge scores with selected demographic variables. Conclusion: Many parents are unaware about the impact of mobile impact on their children. Still there is a need to conduct so many awareness programme regarding this.***

Keywords: Parents, audio assisted teaching programme, Smartphone, under five children, adverse effect

1. Introduction

As smart phone has come into general use in recent years, the use of it by parents is becoming more common to their young children. The reason parents encourage their young children to use it is a high expected effect of self-regulation. In other words, the use of smart phone can provide young children with various opportunities to learn without the restrictions of space and time[1], and help them to have various kinds of indirect experiences[2]. The near-universal access to digital technology, starting at ever younger ages, is transforming modern society in ways that can have negative effects on physical and mental health, neurological development and personal relationships, not to mention safety on our roads and sidewalks[3]. Childhood is a crucial period for shaping healthy behaviours; however, it currently appears to be dominated by screen time. A large proportion of young children do not adhere to the screen time recommendations, with the use of mobile screen devices becoming more common than fixed screens. Existing systematic reviews on correlates of screen time have focused largely on the traditional fixed screen devices such as television. Reviews specially focused on mobile screen media are almost non-existent[4].

The research was conducted within the "Safe Internet for the whole family" project, implemented by UNICEF in cooperation with the Ministry of Education, Science and Technology Development, with the support of company Telenor. The research findings were presented at the panel discussion "Children and Internet-Smart from the beginning", with the participation of the representatives of UNICEF, the Ministry of Education, Science and Technology Development, experts, educators, teachers and parents of preschool children. "The use of digital devices is one of the particular challenges for parents, and for setting limits in education of children. This is where parents' educational styles, their effectiveness and weak sides come to light.

Key findings from the research:

- Most children start using digital devices at the age of four: Children of younger primary school age start to use them at the age of five, while children under five start already at the age of three.
- Every fourth child of preschool age and more than half of children of primary school age already own a digital device.
- The most commonly used digital device among children of preschool and younger primary school age is a "smart phone, and the second most used is a tablet computer.70 percent of children use the phone without supervision, 24 percent with someone's support, and only 6 percent of children do not use the device.
- Two thirds of parents have had a conflict with their children attempting to limit the time spent on the Internet, while one third of them have had confronted with their children because of setting boundaries on the available content on the Internet.
- One third of the surveyed parents are not familiar enough with digital devices to block promotional content offered on the Internet, or to prevent their children from leaving "active digital traces on the Internet".

- Two thirds of teachers (68 per cent) rarely help pupils use the Internet, and more than half almost never teaches children how to react if disturbed by some content on the Internet or if they experience digital violence[6].

When the mobile phone becomes not just an essential item for communication but instead something that takes control of a child's life, parents have a right to be worried**.** Many parents are concerned about the harmful effects of smartphone on children[7].

2. Materials and Methods

Objectives of the study

1) To determine pre test knowledge of parents regarding smart phone and its effect on children as measured by structured knowledge questionnaire
2) To find out the effectiveness of Audio assisted teaching programme on Smartphone usage and its adverse effects among under five children
3) To find out the association between pre test knowledge scores with selected demographic variables

Hypotheses

Hypothesis will be tested at a 0.05 level of significance.

H_1: There is a significant difference between pre test and post test knowledge scores among parents of under five children

H_2: There is a significant association between pre test knowledge scores with selected demographic variables.

Delimitations

The study is delimited to:

- Data will be collected from parents of underfive children
- Assess only knowledge parents regarding effect of smartphone among underfive children
- Awareness programme given through Audio assisted teaching programme to parents of underfive children

Operational definitions

- **Effectiveness:** It indicates to gain the knowledge as determined by the significant difference in pre and post knowledge scores on smart phone and its effect on children.
- **Audio assisted teaching programme**: In this study, Audio-assisted teaching programme refers to the systematically planned audio teaching method on the smart phone effect on children.
- **Smart phone usage:** In this study it refers to under five children using android application mobile oftenly in the home.
- **Effect:** In this study it refers to assess the impact of smart phone on health of under five children.
- **Knowledge:** It refers to existing level of understanding of parents of underfive children regarding effect of smartphone on children health.
- **Parents**: In this study it refers to mothers and fathers of under five children available at the time of the study

Research approach: Qualitative research approach

Research design: pre experimental-one group pre test and post test design was used

Sampling technique: Purposive sampling technique was used

Sample size: 40 samples are selected for this study

Setting: Selected areas of Aurangabad City

Variables

Independent variable: Audio Assisted teaching Programme

Dependent variable: Knowledge of parents

Instrument used: Structured knowledge questionnaire was used to collect the data

Statistical Methods: Frequency and percentage was used to explain the demographic data, and distribution of parents according to knowledge level. Mean, median, range was used to know the difference between pre test and post test knowledge score. Paired t test was used to calculate the significant difference between pre test and post test scores, chi square test was used to calculate the association between pre test knowledge scores with selected demographic variables.

3. Results

Demographic variables

S No	Demographic Variables	Frequency	%
1	**Age in years**		
	<20	2	5
	21-25	12	30
	26-30	20	50
	>30	6	15
2	**Gender**		
	Male	12	30
	Female	28	70
3	**Occupation**		
	Professional	8	20
	Business	10	25
	Coolie	1	2.5
	House wife	21	52.5
4	**Educational status**		
	Illiterate	0	0
	Primary	6	15
	High school	7	17.5
	PUC	5	12.5
	Graduate	17	42.5
	Post graduate	5	4.5
5	**Type of family**		
	Nuclear	30	75
	Joint	10	25
	Extended	0	0
6	**Cost of mobile in rupees**		
	<5000	2	5
	5001-10000	10	25
	10001-15000	16	40
	>150001	12	30
7	**Numbers of mobiles in home**		

	One	3	7.5
	Two	20	50
	Three	14	35
	More than three	3	7.5
8	**Duration of mobile use in a day in home**		
	<01 hr	2	5
	1-2 hr	9	22.5
	2-3hr	8	20
	>3 hr	21	52.5
9	**On a typical weekend / holiday How many hours do you interact with a smart phone**		
	< 01 hour	2	5
	01 hour	4	10
	02 hour	10	25
	3-4 hour	18	45
	5 hour or more	6	15
10	**On a typical week day (Monday to Friday) how many hours do you use smart phone?**		
	< 01 hour	3	7.5
	01 hour	7	17.5
	02 hour	10	25
	3-4 hour	15	37.5
	5 hour or more	5	12.5
11	**What do you as a parent most commonly use the smart phone for?**		
	Movies	2	5
	Home videos	3	7.5
	Music	26	65
	Photos	30	75
	Video chatting	15	37.5
	Talking on phone	40	100
	Texting/ instant messaging	25	62.5
	Games for fun	8	20
	Games for learning	8	20
	Social networking	32	80
	Email	8	20
	General internet use	35	87.5
	Map	10	25
	Others	20	50
12	**Do you think that your child is using more smart phone than other children**		
	Yes	25	62.5
	No	15	37.5

Table no 1: The above table represents the distribution of parents according to age in years i. e 5% of parents are less than 20 years, 50% of parents belongs to 26-30 years of age group.30% of parents belongs to male gender and 70% belongs to female gender, 20% parents working as professional, 25% as Business, 2.5% as Collie and 52.5% as House wife.42.5% belongs to graduate and 4.5% belongs to Post Graduate education.75% belong to nuclear family and 25% belongs to joint family.5% of parents had < 5000 rupees mobile, 40% had 10001 to 15000 rupees mobile 7.5% of parents had one and more than three mobile respectively, 50% had two mobile and 35% had three mobile in their home.5% of parents use less than one hour, 52.5% use mobile more than three hour in a day.5% use less than one hour, 10% one hour, 25% two hour, 45% of parents use 3-4 hour, 15% of parents use five hour or more than this.7.5% of parents use less than one hour, 37.5% use 3-4 hour.100% of parents use mobile for talking purpose, 87.5% of parents use mobile for general internet use, 80% of parents use for games for learning, 75% use mobile for taking photos, 65% for listening the music, 62.5% for texting the messages as a least 5% of parents use mobile for watching movies.62.5% of parents agreed that their children using excess mobile and 37.5% of parents said that their children not using excess mobile.

Pre test knowledge scores

Table 2: Represents that categorization of pre test knowledge scores

S No	Grades	Scores	Frequency	%
1	Poor	0-7	3	7.5
2	Average	8-14	32	80
3	Good	15-21	5	12.5
4	Excellent	22-28	0	0
		Total	40	100

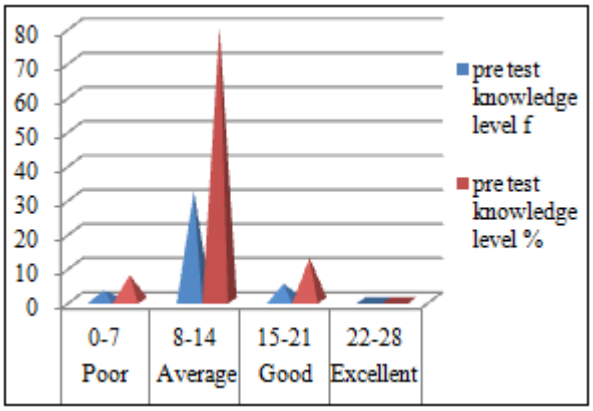

Figure 1: Multiple cone diagram shows that distribution of pre test knowledge scores of parents.

The above table and diagram shows that 7.5% of parents had poor knowledge, 80% had average knowledge and 12.5% had good knowledge.

Post test knowledge scores

Table 3: Represents that categorization of post test knowledge scores.

S No	Grades	Scores	Frequency	%
1	Poor	0-7	0	0
2	Average	8-14	7	17.5
3	Good	15-21	28	70
4	Excellent	22-28	5	12.5
		Total	40	100

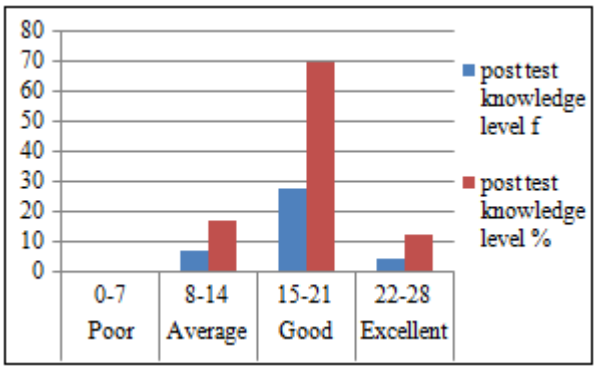

Figure 2: Multiple bar diagram shows that distribution of post test knowledge scores of parents

The above table and diagram shows that 17.5% of parents had average knowledge, 70% had good knowledge and 12.5% had excellent knowledge.

Comparison between pre test and post test knowledge scores

Table 4: Represents that comparison of pre test and post test knowledge scores

S No	Grades	Scores	Pre test		Post test	
			Frequency	%	Frequency	%
1	Poor	0-7	3	7.5	0	0
2	Average	8-14	32	80	7	17.5
3	Good	15-21	5	12.5	28	70
4	Excellent	22-28	0	0	5	12.5
		Total	**40**	**100**	**40**	**100**

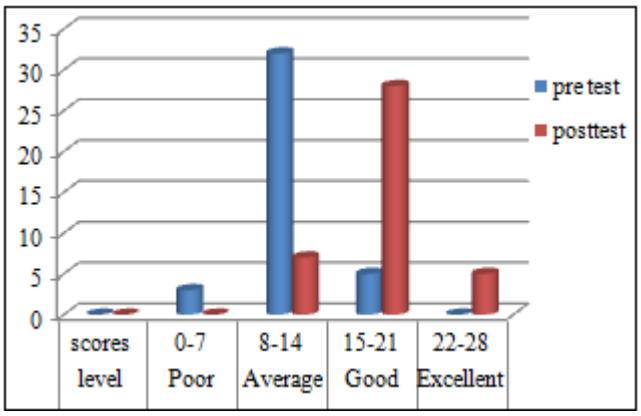

Figure 3: Multiple cylindrical diagrams show that comparison between pre test and post test knowledge scores of parents

The above table and diagram shows that there is an increase knowledge scores in the post test compare to pre test.17.5% of parents had average knowledge, 70% had good knowledge and 12.5% had excellent knowledge in the post test whereas 7.5% of parents had poor knowledge, 80% had average knowledge and 12.5% had good knowledge.

't' test to know the significant difference between pre test and post test

Test	Mean	Median	Range	SD	T value	P value	Significance
Pre test	11.3	11	6-19	2.908	12.39	<0.0001	Significant
Post test	17.97	19	9-24	3.633			

Table no 5: Represents that there is a significant difference between pre test and post test knowledge score (t=12.39, df=39, p=<0.0001). It means there is a effectiveness of Audio assisted teaching programme among parents of under five children. The mean of pre test and post test is11.3 and 17.97 respectively. Whereas median is 11 and 19 for pre test and post test respectively. The range of pre test is 6-19 whereas range for post test is 9-24 it shows there is a difference between pre test and post test

Association between pre test knowledge scores of parents with their selected demographic variables

Table 6: Represents that Association between pre test knowledge scores of parents with their selected demographic variables

S. No	Demographic variables	Df	X2 value	Table value	P value	Significance
1	Age in years	3	1.783	7.82	0.6186	NS
2	Gender	1	0.78	3.84	0.3771	NS
3	Occupation	3	4.151	7.82	0.2456	NS
4	Educational status	4	1.322	9.49	0.8576	NS
5	Type of family	1	1.137	3.84	0.2862	NS
6	Cost of mobile in rupees	3	1.478	7.82	0.6873	NS
7	Numbers of mobiles in home	3	1.909	7.82	0.5915	NS
8	Duration of mobile use in a day in home	3	2.172	7.82	0.5374	NS
9	On a typical weekend / holiday How many hours do you interact with a smart phone	4	6.0852	9.49	0.1928	NS
10	On a typical week day (Monday to Friday) how many hours do you use smart phone?	4	1.947	9.49	0.7455	NS
11	What do you as a parent most commonly use the smart phone for?	13	8.826	22.36	0.7859	NS
12	Do you think that your child is using more smart phone than other children	1	0.25	3.84	0.6170	NS

The above table represents that there is no significant association between pre test knowledge scores with selected demographic variables. Hence research hypothesis is rejected and null hypothesis is accepted.

4. Discussion

A similar study was conducted on video-assisted teaching was effective in promoting knowledge of parents regarding health hazards of Smartphone overuse[5]. The present study also shows that Audio Assisted teaching programme was also effective in enhancing the knowledge of parents regarding adverse effect of Smartphone on under five children. A very few studies were conducted to assess the parental knowledge on smart phone effect on under five children. The present study results shows that distribution of parents according to age in years i. e 5% of parents are less than 20 years, 50% of parents belongs to 26-30 years of age group.30% of parents belongs to male gender and 70% belongs to female gender, 20% parents working as

professional, 25% as Business, 2.5% as Collie and 52.5% as House wife.42.5% belongs to graduate and 4.5% belongs to Post Graduate education.75% belong to nuclear family and 25% belongs to joint family.5% of parents had < 5000 rupees mobile, 40% had 10001 to 15000 rupees mobile 7.5% of parents had one and more than three mobile respectively, 50% had two mobile and 35% had three mobile in their home.5% of parents use less than one hour, 52.5% use mobile more than three hour in a day.5% use less than one hour, 10% one hour, 25% two hour, 45% of parents use 3-4 hour, 15% of parents use five hour or more than this.7.5% of parents use less than one hour, 37.5% use 3-4 hour.100% of parents use mobile for talking purpose, 87.5% of parents use mobile for general internet use, 80% of parents use for games for learning, 75% use mobile for taking photos, 65% for listening the music, 62.5% for texting the messages as a least 5% of parents use mobile for watching movies.62.5% of parents agreed that their children using excess mobile and 37.5% of parents said that their children not using excess mobile. The similar study was conducted among African American parents and results shows that Almost half had more than a high school education (47.7%, 144/302) and incomes above US $25, 000 per year (43.0%, 130/302). Most (97.0%, 293/302) reported owning a cell phone, of which 91.1% (275/302) used it to text and 78.5% (237/302) used it to access the Internet. Most had service plans with unlimited text and data, but 26.5% (80/302) experienced service interruptions in the previous year.80.8% (244/302) used social networking, primarily Facebook, and 74.2% (224/302) were interested in joining a social networking group about a health topic concerning their child. Although relatively few African American mothers (17.9%, 54/302) shared health information via texting, there was strong interest in receiving health information via mobile phones (87.4%, 264/302) [8]. The present study shows that shows that 7.5% of parents had poor knowledge, 80% had average knowledge and 12.5% had good knowledge. The similar study results shows that shows that Mothers are not aware of the UK PA and SB guidelines for the early years. They believe that their child achieves the guideline targets for PA and SB and therefore, they do not believe these guidelines are relevant to them.9

5. Conclusion

The present study shows that parents have average knowledge on effect of smart phone on under five children. The audio assisted teaching programme shows that effective method to increase the knowledge of parents. In future some more studies has to be conduct with large samples and increase the awareness to parents regarding adverse effect of Smartphone on children

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