

Attitude of Parents towards the Usage of Digital Devices by their School-going Children during COVID-19 Pandemic

Ayushi Sharma* and Madhulika Sharma**

The COVID-19 pandemic has changed the lifestyle of almost all age group people. One of the major change in the lives of school-going children is their dependency on digital devices (D.D) like smart phones & laptops for their education, entertainment and to connect with friends & relatives. In the present study an attempt was made to study the attitude of parents of school-going children towards this change in usage of D.D by their children in the early adolescent years during COVID-19 pandemic. The study was conducted on a sample of 150 parents (75 parents of junior secondary & 75 parents of senior secondary school-going children) of Agra city who were selected through multistage random sampling method. Two tools prepared by the researcher herself 'Background Information' Proforma & 'Attitude Measuring Scale' were used for collection of data. The attitude of parents towards the usage of D.D by their children was measured on a five point scale. Three aspects of attitude of

* M.Sc. Research Scholar, Department of Home Science, Faculty of Arts, Dayalbagh Educational Institute, Deemed University, Agra, Uttar Pradesh (India) E-mail: <ayushi.sharma12.dei@gmail.com>

** Assistant Professor, Department of Home Science, Faculty of Arts, Dayalbagh Educational Institute, Deemed University, Agra, Uttar Pradesh (India) E-mail: <dr.madhulika.pdf@gmail.com>

parents towards the usage of D.D by their children were measured; usage for education, usage for entertainment & usage for socialization. The data was collected through online mode from anyone of the parents. After collection of data it was statistically analyzed using percentage, chi-square & correlation method. Majority of the parents (79%) of both Junior Secondary (J.Sec) & Senior Secondary (S.Sec) classes belonged to upper socioeconomic status (SES) (Kuppuswamy Scale) & the level of the education of their mothers was graduation or above graduation mainly (49%). The scores on attitude measuring scale revealed 'favorable' attitude towards the usage of D.D for socialization of majority (77%) of parents. Similarly, in case of majority (76%) of parents attitude towards the usage of D.D for education the attitude was found to be 'moderate' & the attitude towards the usage of D.D for entertainment was mainly (51% parents) found to be 'unfavorable' in total. The parent's of Junior class children were found to be more supportive in both these aspects as compared to the parents of senior class children. The attitude of parents was not so favourable for online education or using digital devices for the purpose of education but, the parents were found to be highly supportive for the usage of digital devices by their children for socialization. The study recommends greater awareness of parents regarding safety measures for the usage of digital devices like child locking system & parental control apps for safe & healthy usage of digital devices by children of different age groups.

[**Keywords :** Attitude, Parents, School-going children, Usage of digital devices, COVID-19 pandemic]

1. Introduction

The nationwide lockdown imposed by the government of India to arrest the spread of Corona virus has affected the lifestyle of all the family members of households especially the working members and school-going children. Work from home and online classes became the new normal. The worst part of it is that the children who were given smartphones for the online classes became accustomed to the use of digital devices. Their lifestyle mainly became sedentary as they could not go outside to play and they became dependent on digital devices for entertainment and socialization also. Due to the increased screen time, mental abilities like creativity of children had been affected badly. All activities became limited to digital devices and even the parents of children were not able to judge the dependency of children on digital devices; whether it's good or bad for them.

1.1 Effects of Excessive Usage of Digital Devices among Children

Exposure to digital devices by children has increased day by day during corona pandemic. Even parents have found different easy

ways to deal with young children who used to be busy in their school homework and take help of these devices to make them eat food and performing other tasks. Digital devices (D.D) became very popular among all classes & societies of people. Parents thought this was a temporary phase and would fade with the lifting of lockdown & when school reopens but, few parents said that children had accustomed to the use of digital devices so the digital devices will become more popular and in demand in a post- COVID world. The Prime Minister of India warned the students against the addiction to digital devices. In his *Pareeksha pe Charcha* interaction with students in January, PM said, “I’m all for using technology to advance our lives but let’s not allow ourselves to be enslaved by technology”, (Amandeep Shukla, 2020). Various other studies have also reported the physiological, psychological & sociological effects of excessive usage of digital devices on children. (Urvashi Dev Rawal, Hindustan Times, 2020; Rabail Tahir & Fahim Arif, 2015; and Amandeep Shukla, 2020).

I. Physiological problems : During this COVID-19, increased screen time, playing games on digital devices for many hours sitting on the couch, watching T.V while eating food and completely avoiding exercises, going to playground to play games or usual walks have been found to result into increased sedentary in children and teens, decreased metabolism, disturbance in sleep cycle, more distractibility and perhaps lower well-being. Complaints of daytime sleepiness and fatigue, headache, irritability, weight gain, back pain, etc. were also reported among children in a study. (Urvashi Dev Rawal, Hindustan Times, 2020).

II. Psychological problem/Behavioural problems : In her study on children during COVID-19, Urvashi Devi Rawal (2020) investigated that children exhibited the signs of behavioural problems like hyperactivity, lack of attention and concentration due to too much use of screens.

- **Violence :** Children even exhibited the sign of violence, anger and frustration due to too much usage of digital devices during the pandemic.
- **Stress/Anxiety :** Children were also found to face problems of anxiety/stress due to excessive usage of digital devices, they were found to suffer from headache, tiredness and mental weakness.

III. Lagging in social skills and deterioration of moral values : Children were found to create their own virtual world and became less interested in real friends and relatives. They were found to keep themselves busy in video games avoiding the offline games and face to face social talks. Due to chatting on virtual mode and video calls, children were found to be lagging behind in the social skills as per their age groups. Due to the online classes for five to six hours and online tuitions for 2 to 3 hours, the children had begun to explore the other uses of technology in their hands at an early age of 6-10 years. Digital devices became their favorite means of entertainment. This has led to even deterioration of moral values & respect for each other (Abdul Majid Khan Rana & Uzma Perveen, 2014). Making funny videos of themselves & others, using social networking sites like instagram, facebook, snapchat for learning & bullying each other were reported to be the entertaining activities for children of various age groups.

Despite the negative effects of usage of digital devices on children, many parents have also been found to support the positive effects of various learning apps and online learning sites in facilitating the learning of new things among children of various age groups (Rabail Tahir & Fahim Arif, 2015).

1.2 The Attitude of Parents towards the Usage of Digital Devices by their Children

Time is changing and views of parents are also changing. Parents want their children to move with the societal norms. This is the period of digitalization. From education to connecting with the people & from shopping to paying the bills, we use digital devices and it has caused a change in parent's attitude. Parents are now allowing their children to learn many things or to explore the world through digital devices. Like all other age groups, children of school-going age group are interested to explore the world through digital devices. Every coin has two sides similarly if digital devices (D.D) have some benefits they also have some negative effects. The parents are worried for the health of children being affected by consistent and excessive usage of digital devices and how to control the children from being addicted to the screen. The addiction to screens is hampering the creative aptitude of children which is going to be a big loss for the coming era of artificial intelligence. It is high time for the

parents to realize the importance of creativity which differentiates humans from the machines. Studies have revealed that the parents want to save their children from being addicted to the use of digital devices. Parents have concerns about how to encourage reading books at home, especially when their children are surrounded by technology everywhere (Johnson, Kurt W., 2014). In another study by Rabail Tahir & Fahim Arif (2015), 96% parents thought that there should be control over the usage of mobile & 40% parents avoided control over their children, 40.3% set rules but not strictly enforced & 30.6% parents set strict rules over the use of mobile by children.

As far as the attitude towards parental control on the usage of digital devices was concerned many parents thought that there should be parental control apps especially in mobile and very few parents thought that there is no need of them. 70% Parents gave their views that passwords should be set in phones/computer and 57% said that there should be time limit on usage of digital devices & 48.6% said children should use digital devices in presence of parents (Rabail Tahir & Fahim Arif, 2015).

The study of John Scott Lewinski (May 2020) stated that 81% of parents said online learning was more important than screen time that was earlier agreed upon by 70% parents before COVID-19. Meanwhile, 84% of parents said technology helped children to learn or to explore. Only 57% of parents said that children got distracted by social media during online learning.

In view of the negative effects of increased screen time on children even the Ministry of Human Resource Development now known as the Ministry of Education had issued guidelines on 14 July, 2020 called PRAGYATA Guidelines for Digital Education for children for online classes during the COVID-19 pandemic. It was prepared by National Council of Educational Research and Training (NCERT). Certain guidelines were given for teachers and parents for online education. As per rules, a maximum of 2 classes of 45 min duration for classes 1 to 8 and 4 classes a day of 30 to 45 min duration for classes 9 to 12 could be conducted by the teachers. Parents were also expected to cooperate in the provisions of online modes for their children's education. Guidelines for parents included regular interaction with children, maintaining a routine, online time management, participation of children in physical activity like yoga, exercise etc., and using safety measures like parental control app.

During this transitional phase of dependency on digital devices for education of children, and everything mainly entertainment & socialization, the present study was conducted to explore the changing attitude of parents towards the excessive usage & dependency of children at an early age of 11 years, their concern about the negative & positive impact of usage of digital devices for various purposes & the safety measures which can & should be taken by the parents.

2. Materials and Methods

2.1 Sample and Sampling Method

The present study was conducted in Agra city. Multistage Random sampling method was used for sample selection. In stage one, two zones; Hariparwat & Lohamandi of Agra city were randomly selected. In stage two, out of these two zones 12 private schools where online classes were going on due to the pandemic were randomly selected. In stage three, list of parents was obtained from schools and 150 parents (any one of the parent); 75 parents of junior secondary (J.Sec.) school-going children (6 to 8 Std.; 11 to 14 years) & 75 parents of senior secondary (S.Sec.) school-going children (9 to 10 Std.; 13 to 16 years) were randomly selected as sample.

2.2 Tools used for the Study

Two types of information was collected through the use of tools constructed by the researcher herself.

2.2.1 Background Information

A self-prepared proforma was used to collect the personal detail of the child & his/her family from the parents. It had items like age, class, name and address of the school, and the details of the parents: education/qualification of parents, monthly income of the family, occupation of parents, and number of the family members, family type and age of family members.

Parents were also enquired about the type of digital device children were using and the usage of digital devices by the school-going children in their daily routine during COVID-19 lockdown.

2.2.2 Attitude of Parents towards Usage of Digital Devices by School-going Children

Attitude Measuring Scale having statements related to the attitude of parents towards the usage of Digital Devices (D.D) by their school-going children during the COVID-19 Lockdown period was constructed by the researcher. The scale was made on a five point scale (Strongly Agree, Agree, Undecided, Disagree, Strongly Disagree). A score of 5 to 1 was given for the items measuring positive attitude towards the usage of digital devices by their children and a reverse score (1 to 5) was given to the items measuring negative attitude towards the usage of digital devices by their children. The Scale was sent to six experts of related field through email to check the face and content validity of the tool. After receiving the views of experts, the tool was modified as per their suggestions. The reliability of the scale was calculated through odd even method and the calculated reliability was found to be 0.766. The scale had total eighteen items. The scale was divided into three sections to study the attitude of parents towards the usage of digital devices by their school-going children for the purpose of (1) education, (2) entertainment, and (3) socialization. Each section had six items.

2.3 Procedure of Data Collection

The data was collected through online survey method. It was collected through e-mails & social networking sites. Initially the researcher established a rapport with the parents of both J. Sec. & S. Sec. children on phone calls & social networking sites and explained them the purpose of the study. Finally after obtaining their consent, 75 parents each of both J.Sec. & S.Sec. school-going children were asked to fill the tools on Google form & submit them online.

3. Results and Discussions

3.1 Background Information of the Respondents and their Children

Majority of the respondents/ parents were found to belong to the upper SES (Kuppuswamy Scale) in case of both J.Sec. & S.Sec. School-going children and had a nuclear family setup. Mothers were also well educated, mainly till graduation or post-graduation as also shown in the table-3.1 on next page.

Table-3·1 : Personal Details of the Respondents

S. No	Variable/ Attribute	Parents of J. Sec. Children (N=75)	Parents of S. Sec. Children (N=75)	Total Parents (N=150)
1.	SES			
	Upper	62(82)	56(75)	118(79)
	Upper Middle	9(12)	19(25)	28(19)
	Lower Middle	4(6)	0	4(3)
2.	Mother's Education			
	Professional/honour	29(39)	19(25)	48(32)
	Graduation/PG.	34(45)	39(52)	73(47)
	Intermediate/Higher secondary Education	6(8)	11(16)	17(11)
	Secondary Education	5(7)	4(5)	9(6)
	Primary Education	0	1(1)	1(0.6)
	Literate	1(1)	1(1)	2(1)
3.	Type of Family			
	Joint family	29(39)	21(28)	50(33)
	Nuclear family	46(61)	54(72)	100(67)

Figures in bracket indicate percentages.

On exploring the usage of digital devices among children, majority of the school-going children were found to spend 3 to 5 hours on digital devices for online classes, 1 to 2 hours for tuition/self-study, 1 to 4 hours for entertainment in a day. Smartphones were the most preferred devices among the children for education, entertainment as well as socialization. The laptops/desktops were found to be more in use for entertainment and socialization by the junior secondary school-going children as compared to the senior secondary school-going children. It was also found that majority of school-going children used to watch T.V/smartphones while eating food.

3.2 Attitude of Parents towards the Usage of D.D by their School-going Children

3.2a Attitude of Parents towards the Usage of D.D for Education by their J. Sec & S. Sec School-going Children

In the present study we found that majority (61%) of the parents of school-going children agreed with the fact that digital devices played an important role in education of children during the corona pandemic. However, majority (55%) of parents in total strongly agreed that studying on digital devices for many hours is not right for their health & majority (51%) of parents in total agreed that children should not continuously gaze mobile phones/ laptops for hours instead, they should take a break for about one hour and majority (50%) of parents also strongly agreed that online studies could never prove to be better than digital devices for studies as shown in the figure 3.2.1.a. Earlier studies have also reported similar findings that books can be a better medium of learning as compared to the online learning. (Patricia A. Alexander & Lauren M. Singer, 2017).

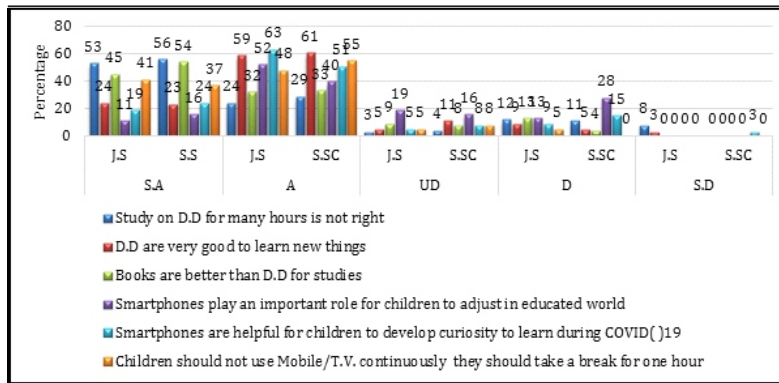


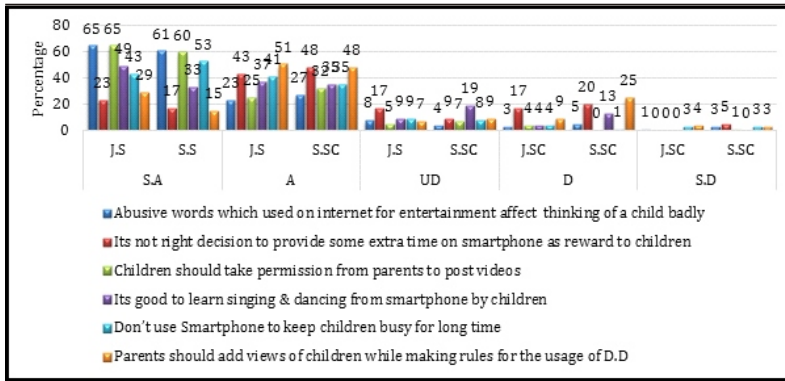
Figure-3.2a : Comparison of Attitude of Parents towards the Usage of D.D for Education by their J. Sec. & S. Sec. School-going Children

On comparing the attitude of parents of J. Sec. & S. Sec. school-going children using chi-square test, no significant difference was found in parent’s attitude towards the usage of digital devices for Education by their J. Sec & S. Sec school going children.

3.2b Attitude of Parents towards the Usage of D.D. for Entertainment by their J. Sec. & S. Sec. School-going Children

On asking the views of parents regarding the usage of digital devices by their school-going children for the purpose of entertain-

ment, the parents were quite apprehensive about the content of entertainment sites available on digital media. Parents in large majority strongly agreed that abusive words which are being used on internet for entertainment affect thinking of a child badly, majority (63%) of parents of school-going children in total strongly agreed that children should take permission from parents to post videos on internet and majority (48%) parents of school-going children in total strongly agreed that digital devices should not be used as a substitute to keep children busy for long time. The study thus suggests that the parents should anyhow encourage children to involve them in other entertainment or stress relieving activities like yoga, exercise and meditation.



Figure=3.2b : Comparison of Attitude of Parents towards the Usage of D.D for Entertainment by their J. Sec & S. Sec School-going Children

On comparing the attitude of parents of J.Sec&S.Sec school-going children using chi-square test, significant difference was found in two aspects; parent’s attitude towards learning extracurricular activities by their children from digital devices ($\chi^2=9.8$, level of significance=0.05) & involving children in making rules for the usage of digital devices ($\chi^2=9.7$, level of significance=0.05). The parents of J. Sec. school-going children in significantly greater number than the parents of S. Sec. school-going children agreed that the children should use digital devices for learning extracurricular activities like singing and dancing as compared to the parents of S.Sec school-going children.

The parents of J. Sec. school-going children were found to be more in favor of involving children’s view for making rules for them to use digital devices as compared to the parents of senior secondary school-going children. This opinion of parents reflected that

parenting the younger kids; making rules for the junior class children and implementing them was easier as compared to the older or senior class children.

3.2c Attitude of Parents towards the Usage of D.D for Socialization by their J. Sec & S. Sec School-going Children

Parents of both the age groups were found to agree with the necessity of using digital devices for connecting with relatives and friends during the pandemic. Children and even parents were found to be using many social media sites like whatsapp, facebook and instagram for socialization. Majority (52%) of parents of school-going children in total agreed that if there is proper limit on the usage of digital devices children will be saved from its negative health issues and addictions. Majority (67%) of the parents of school-going children in total strongly agreed that for proper usage of internet by children parents should talk to them regularly and we found that the parents of both J.Sec school-going children and S.Sec school-going children strongly agreed that digital devices should be placed where parents are available to keep a check on their chatting with friends, relatives and strangers on virtual media.

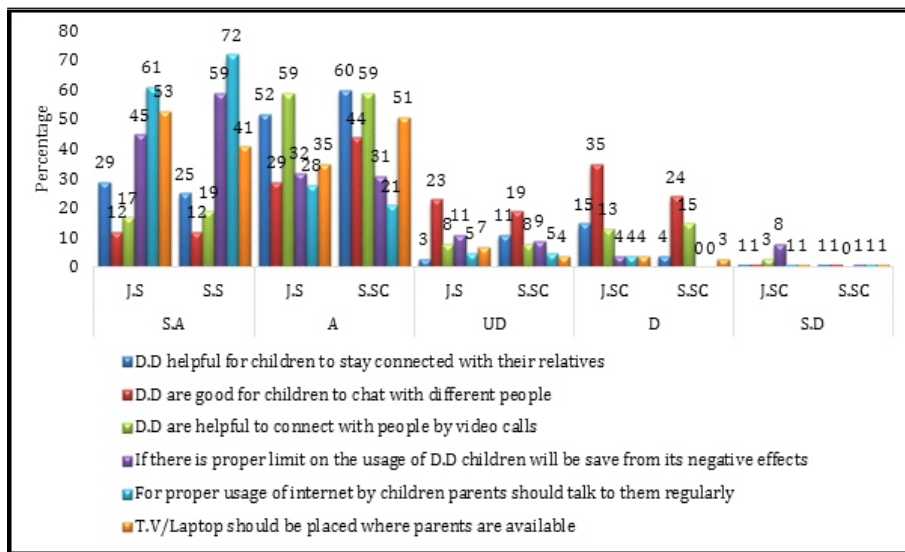


Figure-3.2c : Comparison of Attitude of Parents towards the Usage of D.D for Socialization by their J. Sec & S. Sec School-going Children

On comparing the attitude of parents of J. Sec & S. Sec school-going children using chi-square test, no significant difference as

found in parent's attitude towards the usage of D.D for socialization by their J. Sec & S.Sec school-going children.

After calculating the mean scores on the five point rating scale, the level of attitude (favourable or moderate or unfavourable) of parents was also studied as depicted in the following table :

Table-3·2 : Distribution of level of Attitude of Parents of J. Sec & S. Sec School-going Children towards the Usage of D.D for Education, Entertainment & Socialization

S. No	Level of attitude	Parents of J. Sec. Children (N=75)		
		Ed.	Ent.	Soc.
1.	Favourable	2(3)	7(9)	55(73)
2.	Moderate	60(80)	31(41)	17(23)
3.	Unfavourable	13(17)	37(49)	3(4)

S. No	Level of attitude	Parents of S. Sec. Children (N=75)		
		Ed.	Ent.	Soc.
1.	Favourable	4(5)	2(3)	61(81)
2.	Moderate	54(72)	34(45)	13(17)
3.	Unfavourable	17(23)	39(52)	1(1)

S. No	Level of attitude	Total Parents (N=150)		
		Ed.	Ent.	Soc.
1.	Favourable	6(4)	9(6)	116(77)
2.	Moderate	114(76)	65(43)	30(20)
3.	Unfavourable	30(20)	76(51)	4(3)

Figures in bracket indicate percentages.

We could clearly see that the digital devices like mobile phones were the last resort to continue the academic session of children during the lockdown due to corona pandemic. However, in our study the attitude of parents towards use of mobile phones as a substitute for offline classes through face to face learning with the teacher was found to be moderate/average (76% in total).

Similarly, in case of the usage of digital devices by their children for entertainment purpose, the attitude of parents was

mainly (51% in total) ‘unfavorable’. The parents strongly favoured that the abusive language used on internet affects the child’s thinking negatively. In large number they agreed that the smart phones should not be used to keep children busy or to use as a reward for some good behaviour of children.

Last but not the least socialization was one of the aspect towards which most (77%) of the parents were found to have a positive attitude. During the corona pandemic when people living in a nuclear family setup were found to be suffering from mental health problems and stress due to financial losses and ill health of near and dear ones, digital devices definitely proved to be of great assistance in getting connected with family and friends and sharing their fears and feelings.

3-3 Correlation of Attitude of Parents of School-going Children towards the Usage of D.D with the Background Characteristics of the Respondents

SES, class of children and the education of mother were found to be the major demographic factors affecting the attitude of parents towards the usage of digital devices by their school-going children.

Table-3-3 : Correlation of Attitude of Parents of J.Sec & S.Sec School-going Children towards the Usage of D.D with Background Characteristics

Aspects	Class of Children	SES	Type of Family	Mother Education
Usage for Education	0.16**	0.27**	-0.15*	0.18**
Usage for Entertainment	0.04*	0.19**	0.20**	0.20**
Usage for Socialization	0.06*	0.04*	-0.15*	-0.17**
Total	0.17**	0.31**	-0.10*	0.05*

** S : The result is Significant at $p < .05$

*NS : Not Significant

The results as shown in the above table revealed a significant correlation between the total attitude score of parents and the background variables SES ($r=0.31$, level of significance= 0.05) & the

standard in which children were studying ($r=0.17$, level of significance= 0.05). The parents of higher SES, of higher standard/Class of the child, higher education level of mothers and staying in a nuclear family setup were found to have a more positive or favorable attitude towards the usage of digital devices by their children.

3.4 Safety Measures and Child Friendly Apps for Education, Entertainment & Socialization

The present study has been helpful in exploring the changing attitude of the parents of school-going children towards the increased usage of different digital devices by their children for Education, Entertainment & socialization during corona pandemic. It throws light on the need to improve the level of digital learning by developing different learning apps & digital learning sites for the children so that they can learn effectively.

The favorable attitude of parents towards the usage of digital devices by their children for the purpose of socialization laid emphasis on the designing and developing of different child friendly apps by the apps designers so that children can explore more and connect with their friends in a positive manner.

For the entertainment purpose much needs to be done on the digital platform in order to change the unfavorable attitude of parents into a favorable attitude like developing more effective infotainment apps (playing while learning) and games for the children. Certain age restricted rules/ safety measures should be used by the parents for controlling the viewing of videos and music which have abusive and antisocial language by children of tender age. The study suggests that if the parents are made aware about the parental control apps and safety measures they could be less apprehensive towards any kind of usage of digital devices by children even for entertainment purpose.

4. Conclusion

The present study throws light on the increasing popularity of digital devices like mobile phones among the school-going children (classes 6 to 10) for the purpose of education, entertainment and socialization during COVID-19 Pandemic. The parents were especially concerned about the long hours of study their school-going children had to succumb to on the digital devices during the

lockdown period. However, the parents agreed with the fact that digital devices were the only option for carrying out the studies of children during this academic session. Even for interacting with their friends and relatives audio and video modes of chatting were of great help. Only for the purpose entertainment by their school-going children the parents were found to be worried regarding the content of entertainment sites; the abusive language, the unethical and antisocial values being projected on comic videos on you tube and other apps on mobile phones. The parents were found to be concerned about the impact of these antisocial content on the moral and social development of their children. The study revealed the need for greater awareness of parents about safety measures like parental control apps and child locks for limiting the screen time of their kids and controlling the accessibility of their kids to all the unnecessary sites and apps. The parents were especially concerned about the long hours of study on the digital devices their school-going children had to succumb to during the lockdown period. A longitudinal study covering both the COVID and post-COVID period can be of great help in revealing any changes in the usage of digital devices by the school-going children, their attitude and their parent's attitude towards the usage of digital devices for various purposes after this pandemic.

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