

Assessing Parents' Perception of Online Classes during the COVID-19 Pandemic: A cross sectional study

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Abstract

Introduction

The impact of COVID-19 had resulted in closure of over 90% educational institutions. The sudden move towards online teaching had hardly given any time to plan. Home schooling is a jolt to parent's efficiency with impact on student's life, so it is important to look at challenges faced by parents. Our objective was to assess the parents perception of online classes conducted during COVID 19 pandemic

Methods: A cross sectional study involving parents of school children 1st to 12th and professional programmes (medicine and engineering). 22 validated questions (Cronbach's alpha= 0.7) using Likert scale was used. Questionnaire with the consent form was sent to 300 participants in google forms in different groups.

Results: 233/300 (77.6%) responded, parents of engineering students was 62%, school 75% and medical 96%. Male 41% and female 59%. Parents who had 2 children attending online class was 49%, one child 45%, three 4% and 2% four. Majority used 2 devices, preference was mobile and laptop. Bandwidth was good for school students, satisfactory for engineering and medical. 60% of parents preferred 45 minutes duration. 70% strongly agreed that it was difficult to adopt online mode. 75% expressed apprehension to monitor safety. 75% strongly

agreed it was difficult to keep children motivated 40-57% agreed quality of online modules was satisfactory, 51-58% agreed that reading material was accessible. 70-80% expressed child's understanding was not focused. 90% expressed that interaction was less and challenging. 70% felt it caused anxiety in children.

Conclusion: Parents expressed difficulties in terms of internet connectivity, devices and safety concerns. Understanding and focus on subject was only in fifty percent students. Less interaction, motivation was challenging and had caused anxiety in their children

Key Words: Parents perception, online classes, devices, challenges

Introduction

The global COVID-19 pandemic has had a profound impact on the education sector like others, hence inevitable changes were brought into the education system as a preventive measure against the spread of pandemic. By the end of March 2020, the epidemic had spread to over 185 countries and resulted in the closure of over 90 percent of all schools, colleges and universities impacting many students. There are reports to show how schools managed the situation.^{1,2} In these tough times, online education offered an alternative to traditional classroom instruction. The rapid spread of the disease and the abrupt shift to online instruction left little time for preparation or consideration of the advantages or disadvantages that might result from this transformation.

In the middle of this remarkable change, parents became essential participants in the educational process, serving as vital source of support for their kids during home learning. In addition to bringing with it certain special difficulties, the shift to online instruction had forced parents to re-evaluate their attitudes and involvement in their kids' education. In such a situation it was important to look at the perceptions and challenges faced by parents towards the online teaching and learning.

Bjorklund and Salvanes ³ described that families are central to education and are widely agreed to provide major inputs into a child's learning but it is very unlikely that it will on average replace the learning lost from school. Oreopoulos et al. 2006 ⁴ had told that there will be substantial disparities between families in the extent to which they can help their children learn. Crucial differences include the amount of time available to devote to teaching, the non-cognitive skills of the parents, resources and also the amount of knowledge.

Despite the widespread adoption of online classes, there remains a paucity of comprehensive data on how parents perceive this mode of education in terms of its effectiveness in delivering knowledge and skills to their children. This study seeks to address this gap by exploring and analysing the perceptions of parents regarding online classes during the COVID-19 pandemic in India.

The primary objective of this research is to gain insights into how parents evaluate the efficacy of online teaching in meeting educational objectives and fostering their children's academic growth. By examining factors such as access to technology, quality of teaching materials, engagement levels, and overall satisfaction with online education, the study aims to provide a nuanced understanding of the challenges and successes experienced by families during this unprecedented period

Materials and Methods:

This cross-sectional study was over a period of three months conducted involving the parents of students. All the parents of school children and professional programmes like medicine and engineering were invited to participate in the study. The parents of school children (1st to 12th grade) and professional programmes were included and those parents who did not consent to participate in the study were excluded. The study followed ethical guidelines as

per Declaration of Helsinki. The protocol was approved by Institutional Ethics Committee SDUMC/KLR/IEC/226/2020-21 dated 26-8-2020

A semi-structured questionnaire (with both open- and closed-ended questions) was created to gather parent's perception on key aspects of the online teaching learning. Three professionals in the field of medical education validated the questionnaire. Researchers mailed the questionnaire to professionals and provided clear instructions to conduct the validation process. The professionals were asked to assess the topic and components and questionnaire critically. Researchers requested the professionals to provide written input to increase the relevance of items. All comments provided by the professionals were considered to improve the questionnaire and its items. The final validated questionnaire contained twenty two items. Eleven questions were provided with options, nine questions were with 5-point strongly agree- strongly disagree Likert scale. There was two open-ended questions on merits and demerits of online education. Pilot study was conducted on 25 students who were not involved in the main study. The Cronbach's alpha reliability was 0.7.

Data collection was done through the Google Forms online survey platform. The statistical data collected via Google Forms was exported, processed in Microsoft Excel, and analysed using IBM, SPSS, version 22. The open-ended question representing qualitative data was analysed using manual, theoretical thematic content analysis. The STROBE guidelines were followed wherever applicable.

Results

The questionnaire with informed consent form was shared through google forms to parents (n=300). A total of 233 parents responded to the questionnaire. The response rate was 77.6%. Among them 59% were females and 41% males. Out of the total responders 62% were parents of engineering students, 75% were school students parents and 96% were

parents of medical students. Among the parents who responded 49% of the parents had two children, 45% had single child, 4% had two children and 2% had four children. Regarding the number of devices used by their children around 75% of the students across all streams used two devices for their learning activity.

Mobile phones (42%) and Laptops(34%) were the frequently used devices (Fig.1) by the students for their teaching and learning process. The bandwidth of the internet while engaging in teaching learning activity was perceived good (59%) by school students parents and satisfactory by medical (58%) and engineering (49%) respondents (Fig.2). Multiple devices and users in a house will hamper the speed required for receiving the content effectively.

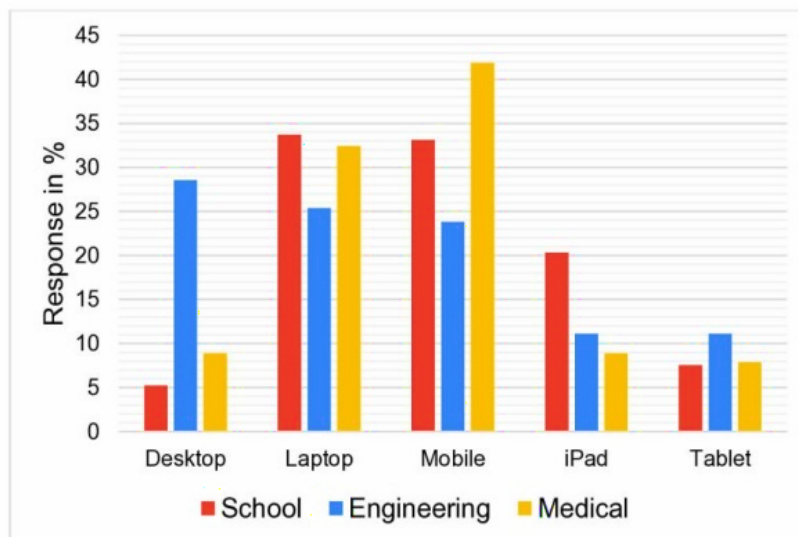


Figure 1. Type of device: mobile and laptop preferred by school and medical students, but engineering used desktop and laptop

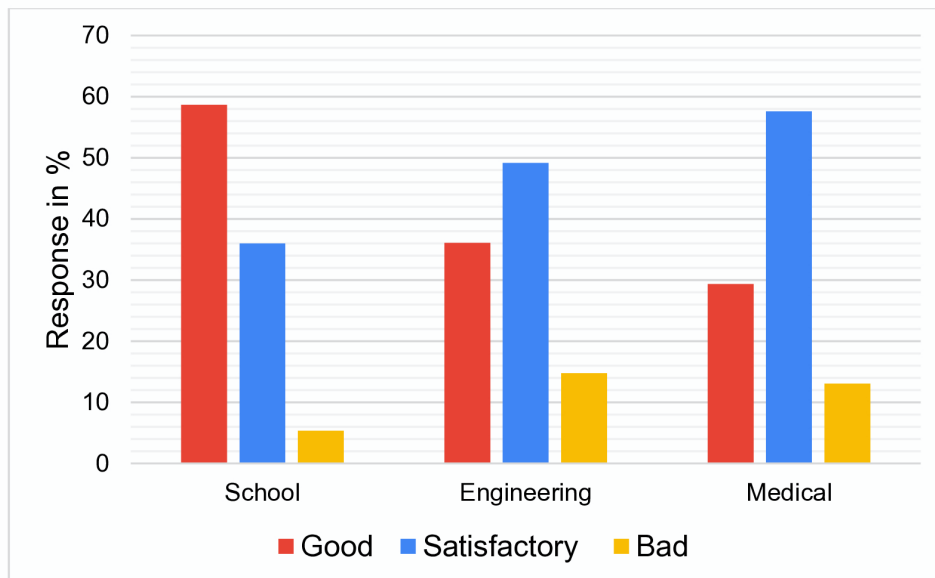


Figure 2. Bandwidth of internet throughout the day

Regarding the perception on number of hours preferred per day for online learning 3-5 hours per day was favoured by school and engineering parents but medical parents preferred 1-3 hours of teaching per day (Fig.3a). 60% parents responded that duration of each class should be 45 minutes (Fig.3b). 80-90% preferred traditional teaching (Fig.4). Table 1 represents the overall responses obtained for the items on Likert scale.

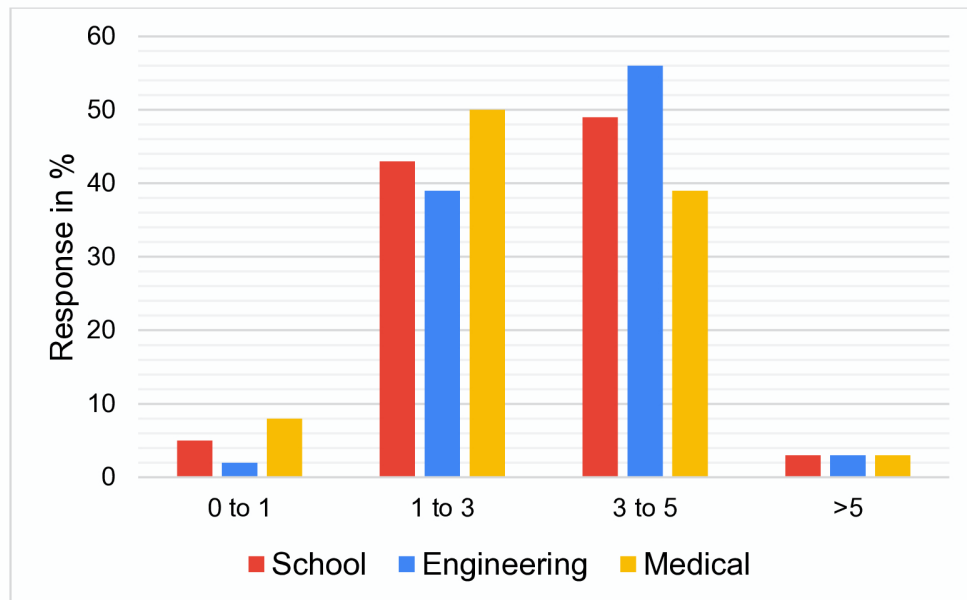


Figure 3a. Hours of online class per day

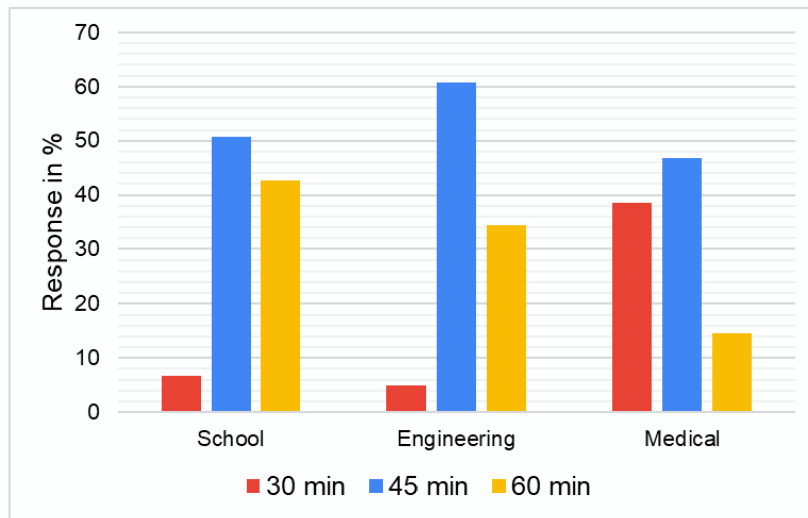


Figure 3b. Duration of each class

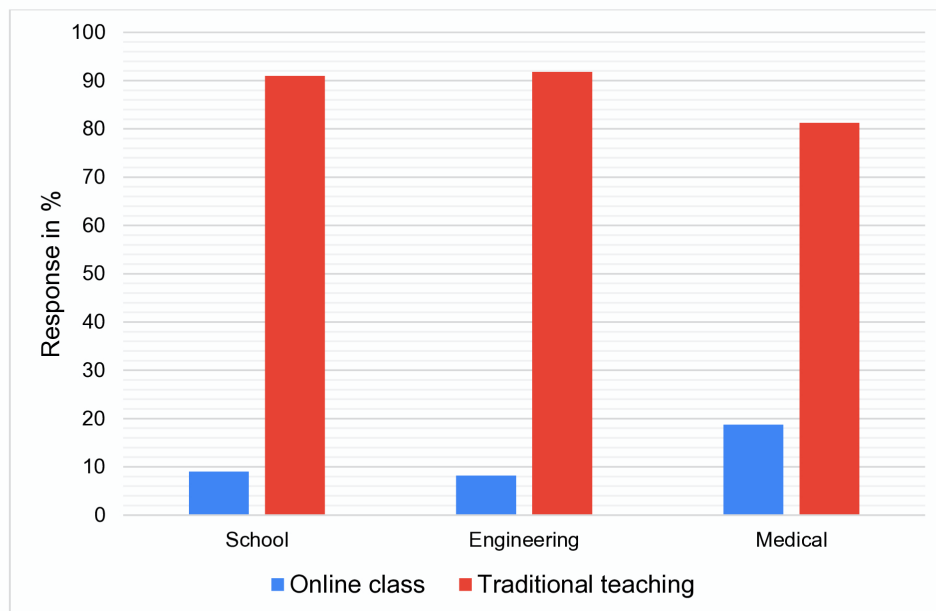


Figure 4. Preferred mode of studying

Table1: Parents perception on the online teaching learning activities of their wards

Sl No.		Parents	SA %	A %	N %	D %	SD %
1	The unplanned and rapid move to online learning with no training and little preparation has resulted in difficulties to adopt to this situation	S	16	54	24	3	3
		E	40	41	8	8	3
		M	30	5	43	17	5
2	Parents are having a hard time coping with mounting responsibilities with the introduction of these online classes	S	13	49	28	7	3
		E	44	41	12	3	0
		M	23	21	34	15	7
3	Online classes have increased the parent's apprehension to monitor and manage children's safety when online	S	23	52	15	9	1
		E	44	46	0	8	2
		M	31	20	35	9	5
4	Parents have to take lot of effort to keep the child motivated to attend online classes	S	27	47	16	5	5
		E	44	38	13	3	2
		M	29	15	27	14	16
5	The quality of the online modules in terms of content and teaching procedure is to the satisfaction of your children	S	11	38	29	13	9
		E	21	36	26	7	10
		M	29	9	6	29	27
6	Online classes provide your children access to learning materials easily and as per their convenience	S	14	44	24	13	5
		E	25	36	18	11	10
		M	26	28	27	14	5
7	You feel online classes have no focus on what the child understood	S	14	56	17	12	1
		E	42	43	13	2	0
		M	24	25	26	21	4
8	The lack of in-person interaction with both instructors and classmates can be particularly challenging for your children	S	24	58	13	4	1
		E	47	43	5	3	2
		M	38	28	26	6	2
9	The sudden switch to online classes have caused anxiety among your children about their academic failure	S	23	51	5	18	3
		E	49	38	10	3	0
		M	31	25	28	7	9

S=School, E=Engineering, M=Medical

Values within parenthesis are percentages. SA=Strongly agree, A=Agree, N=Neutral, D=Disagree, SD=Strongly disagree

The answers to an open-ended question representing qualitative data were analysed using manual, theoretical thematic content analysis. The advantages of online class expressed by parents were time in travelling was saved, online classes were convenient and timing was

flexible. They felt there was no exposure to contacts so their children were safe from pandemic. Teaching modules were accessible, so they could refer as and when needed. Parents stated that this type of exposure helps students to be prepared for future challenges their children did not lose Academic year .

Disadvantages addressed were less interaction with teacher and other students. Parents were supposed to carry homework and submit. Student's addiction to mobile had increased. Continuously seeing device had affected eyes, they experienced neck pain, anxiety and stress. Internet connectivity was poor so this had hampered the continuity of learning process. Data consumption was high, it was getting over very fast and it was expensive as well

Discussion

The transition to online learning during the COVID-19 pandemic has significantly impacted parents' attitudes towards education and technology. An observational study done to explore parents' perspectives of technology-based online education during COVID showed that parents' continuous supervision and guidance was needed in addition to the teacher's mentoring when teaching is online.⁵ A survey examining the experience of parents in Czech Republic with respect to home education during the COVID-19 lockdown extracted that parents face difficulties such as lack of time, technology issues ,inadequate teaching skills and content knowledge.⁶ The digital learning is opening up new windows, which will connect the students globally through unbiased and undivided education.⁷

Literature has revealed that parents faced various challenges, such as increased stress levels, concerns about screen time, and balancing work responsibilities while supporting their children's virtual learning.^{8,9} Similar challenges were faced by students in our study as well like seeing the device had resulted in pain in the eyes and watering, they also experienced

neck pain. Studies have shown when more children attend online classes; parents experience more negative interactions and lower well-being, indicating a challenging impact on parents during distance learning.¹⁰ 49% of the parents involved in our study had two children, they expressed both parents had to sit with their children to assist, because of this their work was also getting affected. The number of children attending online classes had impacted parents' coping strategies during covid-19 pandemic, influencing children's trauma and anxiety symptoms.¹¹ Parents in our study opined that their children and themselves were very anxious during online class, because they were unaware how to handle the connectivity issues when it got disconnected midway. Research has shown that parents of children attending online classes experience stress and anxiety due to the challenges of assisting with online activities.¹²

Our study also highlighted that medical students preferred only three hours per day and expressed that duration of each class should be around 45 minutes only. Majority of the students used mobiles, but engineering students preferred desktop probably the software used by their faculty was compatible with this device. Additionally, children's excessive use of gadgets for online learning can lead to negative impacts such as dependency, reduced interaction with the environment, and health issues, which can further burden parents.¹³ Moreover, the transition to online learning during the COVID-19 pandemic has resulted in parents reporting discomfort, dissatisfaction, and behavioural changes in their children, affecting the parents' well-being and parenting responsibilities.¹⁴

Some studies suggest that the rapid move to online learning during COVID-19 led to increased dropout rates, while other studies indicate improvements in academic performance and achievements. In our study majority of the respondents said that the unplanned and quick move with no training and little preparation had resulted in difficulties to adapt to the situation. Similar findings was reported in a study where rapid transition to remote online learning led to learning loss, lack of motivation, and exacerbated pre-existing

educational and social inequities.¹⁵ During the Covid-19 pandemic, a study showed that 81.7% of parents were engaged in supervising children's online learning, but some faced difficulties in dividing time, attention, and explaining lessons to children.¹⁶

Online and remote learning during the COVID-19 pandemic increased parental responsibilities, with parental support and motivation being the most effective factor in developing children's positive emotions and learning attainment.¹⁷ These results are consistent with findings of our study where majority of parents agreed that online classes have increased the parent's apprehension to monitor and manage children's safety when online and parents have to take lot of effort to keep the child motivated to attend online classes.

In our study internet bandwidth was a major challenge face by parents, another study has shown that one-in-six students were from areas with poor broad band coverage, with large disparities by geography. It also revealed that students from the poorest broadband coverage areas were more likely to be socioeconomically disadvantaged. As a result, they recommended that Higher Educational Institutions can prioritise access to campus facilities and services to less well-off students living in poor broadband coverage areas to help ensure an effective and equal learning experience for all students.¹⁸

Online classes saved time, was convenient with flexible timings. Despite these advantages, parents expressed that device use reduced interactive skills in students, developed addiction to devices and affected their health. The pros and cons of online learning perceived by parents indicate that traditional classroom learning may to some extent reduce parents stress, anxiety, monitoring activities and additional time dedication to motivate their children to concentrate. An interesting finding of a study is that almost half of the respondents said that their children can develop their technological competence while using digital media as a home-based learning platform. This means that the online learning

approach in children's education can also educate new knowledge and mastery the use of digital technology which is growing rapidly nowadays.⁸

Conclusion

This study reveals that there were demerits and demerits of online teaching, from parents point of view the advantages were their children were safe from pandemic, travelling time, was saved, it was convenient and flexible. Parents stated that this type of exposure helps students to be prepared for future challenges and the child did not lose their academic year. Disadvantages were less interaction, psychomotor and communication skills learning was inappropriate, and addiction to mobile. Exposure to devices resulted in health issues like pain in the eyes, neck, also anxiety and stress. Internet connectivity was poor which hampered the learning process. Data consumption was high and it was expensive.

Ethical conduct of research

All ethical standards were strictly adhered to by the researchers, including informed consent and confidentiality. The ethical clearance No.SDUMC/KLR/IEC/226/2020-21 dated 26-8-2020 was provided by the Institutional Ethics Committee of Sri Devaraj Urs Medical College, Kolar, Karnataka

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