Exploring the Issues Faced by Children with Blindness in Pursuing Education During COVID-19

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Abstract

This paper explores the challenges and problems faced by children with blindness in pursuing education during the time of COVID-19 and makes certain suggestions in order to make education more meaningful, interactive and accessible to such children during Covid-19 and after schools are reopened once the situation becomes conducive. The paper employs an interview method with open-ended structured questionnaire, in order to collect data from the participants. The paper highlights that children with blindness are facing various challenges and problems such as the lack of availability of study material in accessible format, difficulties in accessing online classes, issues related to pedagogy and issues associated with the emotional well-being of the students. The paper concludes by putting forth the argument that the government should come up with expert guidelines to teach children with blindness during COVID-19; teachers should be trained in teaching children with blindness in distance mode education; teachers and children should use assistive technology available to them and proper training should be imparted to them to enable them to use such technology efficiently and the help of non-governmental organizations (NGOs) should be taken to assist the children with blindness to continue their education during these testing times.

Introduction

The Coronavirus Disease (COVID-19) is a newly discovered disease which is caused by 2019-nCoV, also known as severe acute respiratory syndrome Coronavirus 2 (SARS−CoV−2). The disease is infectious and primarily spreads through "droplets of saliva or discharge from the nose when an infected person coughs or sneezes" (World Health Organization, n.d). Since the disease is infectious and there is no specific treatment or vaccine available as of July 15, 2020 (ibid), most countries, including India, have taken unprecedented measures such as putting severe restrictions on the movement of people, banning international travel, banning or limiting the gathering of people in public places and closing down or limiting the services of the places of worship, courts, cinema halls, restaurants, hotels, bars, shopping malls etc. Apart from the measures already outlined, most countries have closed down educational institutions such as pre-school centres, schools, colleges/universities and coaching-centres. Around 1.5 billion children and other students are affected by the closure of educational institutions (UNICEF, April 21, 2020). The government of India took the decision to close all schools in late March and since then all schools are closed from July, 15 2020 till now. The closure of schools has a disproportionate impact on children from low-income households, children with no or low internet access and children with disabilities/blindness (Alasuutari, 2020). This paper explores two key research questions:

I.   What are the specific challenges/problems/issues that children with blindness face while pursuing education during the time of COVID-19? And

II. What are some of the measures which can be taken in order to make the learning process more meaningful, interactive and accessible to such children during COVID-19 and after schools are reopened once the situation becomes manageable and favourable enough to do so?

Following this introductory part, the second section of this paper briefly discusses the research methods employed for research and outlines the limitations of this study. Section 2.1 highlights some of the limitations of this study. The third section discusses the challenges and issues faced by children with blindness in

accessing the study material, writing tools and issues regarding online education. The last section concludes by providing certain suggestions to make education accessible to such children.

Research Methods

This is an exploratory research which seeks to explore and understand the challenges and problems faced by children with blindness in pursuing their studies during COVID-19 and what are some of the measures that can be taken in order to make education more effective and accessible during the time of pandemic. The snowball sampling technique has been used for this research in order to recruit the participants for the research. The snowball sampling technique has been selected because the schools are closed and it is not possible to collect the data from schools about children with blindness studying in those schools. 20 participants from various parts of the country were recruited for this study, comprising of 10 boys and 10 girls. Further, the sample comprises of children with complete blindness and children with low vision. The sample also contains children from mainstream/regular schools[7] as well as from special schools[8]. An interview was conducted with the participants over the mobile phone and data was collected using the open-ended structured questionnaire. Apart from the primary data, the research also utilises the published literature on this issue. In order to find relevant literature on the topic, a search was conducted on Google with key words such as "Corona/ COVID-19 and education of children with disabilities/blindness", and the combination of the mentioned key words thereof. The search was conducted using the University of Delhi's wi-fi (the Delhi University has a subscription of various academic databases), so that the literature from the subscription-based journals could also be found.

Limitations of the Study

There are a few limitations of the study which are explored below:

Given the restriction on the movement of the people, the telephonic interviews were conducted with the participants, and therefore, the children who did not have mobile phones/ telephones could not be included in the study.

Since the snowball sampling technique was used to recruit the participants for the study, it is plausible that the sample does not completely reflect the targeted population.

Notwithstanding the limitations of the study, the study will contribute in understanding the specific challenges and problems which children with blindness face in the pursuance of their studies during COVID-19. The study will help the educators, parents of children with blindness and policy makers regarding what can be done in order to make education more meaningful and accessible to children with blindness during COVID-19.

COVID-19 and children with blindness

Education is arguably the most important contributor in human development and has a transformative effect, not only for the individual, but also for the whole society. The quality of education provided and the reach of effective education to various groups, i.e. persons with disabilities (PwDs), girls/women, members of Scheduled Castes (SCs), members of Scheduled Tribes (STs), persons from economically and socially backward classes and other historically disadvantaged people , determines the positive outcomes that education can have in the given society. Children with disabilities have historically been excluded from the educational opportunities, hence, the literacy among persons with disabilities remains low. According to the Census of India (2011), there were 45% persons with disabilities who were illiterate, compared to the 26% illiteracy among Indians. The government of India has taken various measures from time-to-time to make education accessible to children with disabilities. For instance, India enacted the erstwhile Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995, which provided for free education to children with disabilities. Under the Right of Children to Free and Compulsory Education (RTE) Act, 2009, children with disabilities, just like other children, have a right to free and compulsory education. An amendment to the RTE Act 2009 in 2012

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[7] Mainstream/regular schools are those where children with and without disabilities study together in one classroom in inclusive setting.

[8] Those schools where children with a disability or children with multiple disabilities study are called "special schools". For instance, a school for children with blindness.

included the children with disabilities in the category of disadvantaged children. In 2016, the government of India repealed the PwD Act 1995 and enacted Rights of Persons with Disabilities (RPwD) Act 2016, which provides for the right to free education to children with disabilities from the age of 6 till the child attains the age of 18. Furthermore, the Act provides that a child has the right to obtain education either in a special school or in a mainstream school of his/her choosing. National Policy for Children (2013) also reaffirms the commitments – affirmative, legislative and financial – of governments towards children including children with disabilities.

Despite the legislative and policy framework for the education of children with disabilities, they continue to face significant barriers in pursuing their education (UNESCO, 2019). "Significant gaps, therefore, remain, even though successive government schemes and programs have brought large numbers of children with disabilities into schools" (ibid). For instance, the physical environment being largely inaccessible to persons/children with disabilities, societal attitude continuing to be negative, inadequate funding for the education of children with disabilities, lack of information to the parents of children with disabilities and untrained teachers are some of the main barriers to the effective education of children with disabilities (Singhal, 2009; 2013). COVID-19 has created many problems for the education of children with disabilities in general, and for children with blindness in particular.

Access to study material and writing tools during COVID-19

There are a number of issues which children with blindness are facing during COVID-19 in furthering their studies effectively and efficiently. For instance, very few students are able to obtain the textbooks and other study material in an accessible format. 4 out of 20 participants interviewed for this study reported to have the required study material for this academic year. There are various barriers in obtaining the study material in an accessible and preferred format. For instance, children with blindness studying in special schools, and sometimes children who are studying in the mainstream schools used to get books in Braille format, but due to the closure of schools, they are unable to procure the Braille books. Most of

the children studying in special schools use to reside in the campus of the schools itself. Since the schools are closed and students are back at their homes, they no longer have access to the Braille books. One student of class 12th studying in the special school said, "I have board exams this year. I am currently at my home and do not have Braille books with me so unable to focus on my studies as I prefer Braille books over any other alternate format of books - audio books and e-text." He further adds, "Had I known that this school closure would last this much longer, I would have taken at least some Braille books with me so that I would have at least something to read at my home".

Other children studying in special schools or those students who get the access to the Braille books also expressed similar preference for Braille books over any other format. For instance, another student of special school studying in class 11th said, "although I sometimes use audio books as well for my studies, I always read Braille books alongside them, otherwise I feel sleepy by just listening to audio books". It is not just that students are unable to read in the absence of Braille books, there are also some associated challenges in the absence of them. "My classes are happening online and teachers sometimes give homework and ask us to submit the same through WhatsApp voice notes or any other medium, but since I do not have Braille books at my home, I find it difficult to do the given work as I do not have anything to read or refer to", said one student of class 10th.

The issue is not just limited to the access to Braille books. Some special schools also provide the books in large print for the benefit of low vision students. Since the schools are closed, they are also unable to procure the same from the school/institution. For instance, one student studying in 11th class in special school informed, "I am a student with low-vision, so I need books in large-print. The school/institute used to provide me the same but due to the closure of school owing to the spread of COVID-19, I am unable to procure the books in large print from the school." She further added, "large-print books are not available in the book stores and I cannot read the normal printed books as it puts strain on my eyes". "If the school is closed for long and I do not get the books in large-print, I fear I might get behind

from my classmates in the studies", she further added. Apart from the access to Braille and large-print books for those studying in special schools, children with blindness studying in mainstream schools have also not been able to procure the textbooks for this academic year. A girl studying in mainstream school in 12th class said, "I am a person with low vision and I need normal printed books, but I am unable to procure the same so far because my family is facing some financial issues resulting from COVID-19 induced lock-down and restrictions." Another participant who studies in mainstream school and resides in the hostel run by a non-governmental organisation (NGO) said, "my organisation used to provide me audio books for my course, but this time as I am away from my organisation at my home, I could not get the study material."

Although it is difficult to procure Braille books locally, there are various online platforms such as Bookshare[9], Sugamya Pustakalaya[10] and the website of National Council of Education, Research and Training (NCERT), from where children can download the textbooks in audio and e-text formats. But surprisingly, very few students were aware of such online facilities. For instance, only 2 out of 10 students studying in special schools were aware about such online platforms. One of them who is studying in class 12th said, " I have heard about such online facilities, but frankly, I have never used them. In fact, I do not know how to use them". Further, none of the 10 students studying in mainstream schools interviewed for this research were aware about such online facilities. In fact, one student studying in 9th class reacted when she was told about such facilities, "it is great that such facilities are available online from where I can download the text books as well as other study material. Why do they (teachers) not tell us about such facilities?" There could be various reasons as to why children are not aware of such online facilities: (I) before the COVID-19 pandemic, children could easily get text books in an accessible format, either provided by their school/institution or arranged by them, and therefore, they might have not felt any need to know about the alternate mediums to get the

same; (II) teachers are themselves not aware of such facilities, and hence, cannot inform children about such facilities; (III) generally, there is low internet literacy among children with disabilities, and children with blindness in particular;(IV) the access to internet is itself a challenge in India and it becomes a bigger challenge for persons with blindness, owing to the inaccessible digital infrastructure and the cost associated with accessing the internet.

Apart from the unavailability of study material in an accessible and preferred format, most of the students who were residing in the hostels and who have now gone back to their homes also do not have equipment or tools to write Braille such as the Braille slate, stylus and braille paper. These equipment/tools are locally unavailable and can be found only in big cities or where there are schools for the blind. For instance, one student said, "like other students, I also did not carry Braille slate, Braille paper or stylus with me back home, but I am lucky that I reside in Delhi and my parents could procure these things easily for me from one institution for the blind." The importance of Braille writing tools for the blind can be gaged from the fact that most of the students agreed that if they had known that COVID-19 would force the school closure for so long, they would have taken their Braille writing tools with them. Furthermore, out of all the participants interviewed for this study, only one student possesses a laptop. All the other students either write in Braille or low vision students write in print. In the absence of any writing tools, students are facing challenges in making notes and doing homework. For instance, one student studying in class 10th said, "I find it difficult to complete the homework because I do not have anything to write. Teachers ask us to record the given assignment in our voices and send it to them over WhatsApp or any other platform. Since I do not have Braille tools with me, neither can I take notes while listening to teachers' lectures, nor I can write down anything for my reference while I am recording my homework." The unavailability of writing tools not only presents immediate problems, but has repercussions for this academic year as well. For instance, one student studying in 12th class

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[9] Bookshare® (https://www.bookshare.org/) is an online accessible library for persons with print disabilities such as visual impairment, severe dyslexia, and cerebral palsy. The registered users can download the available content in accessible format and read the same on various devices.

[10] Sugamya Pustakalaya is an online platform of accessible books for persons with print disabilities.

having board exams this academic year said, "although the government has reduced the syllabus for this academic year, but I do not have writing tools with me which means I cannot prepare notes for my future use. This means that I will have to work very hard once schools reopen." Other students also expressed similar apprehensions regarding the unavailability of Braille writing tools and the future consequences it may have for this academic year.

Issues associated with online education during COVID-19

Since the closure of schools, the schools and various governments i.e. the Central government and state governments have taken various measures to continue school education in the country. The Government of India and various state governments are broadcasting educational content through television channels, radio stations and community radio. Some state governments also provide educational content and instructions, using online video-sharing platforms such as YouTube. Apart from the steps taken by the various governments, schools and teachers have also taken various measures to continue the teaching-learning process. For example, the classes have moved online and teachers are imparting education online through various platforms such as Google Meet, Zoom, Google Classroom, Microsoft Team, etc. In circumstances where it is difficult to take online classes, other measures such as sending study material, giving homework and providing appropriate instructions using instant messaging apps such as WhatsApp, Telegram etc. have been considered. Apart from this, the help of text messages and personal mobile/telephone calls is also taken when all the above-mentioned measures do not work.

Although most of the teaching is done using online conferencing platforms, the accessibility of such platforms remains a huge challenge for children with blindness (Rising Flame and Sightsavers, 2020). Further, the devices required to access such online platforms and the technical know-how to use them is another challenge altogether. Sensory and tactile inputs are impossible to provide online, and in the absence of such inputs for the children who require them, there can be an adverse impact on the education of such children. For instance, it is almost impossible to give them instructions online to the children who are learning reading and

writing Braille. Similarly, those students who have just started learning mathematics may also find it difficult to learn online without any physical interaction. For instance, one of the main tools to teach mathematics to children with blindness during early childhood and primary education is abacus. It is difficult to deliver online instructions to such children. The teaching of abacus requires sensory interaction. In the absence of required support for such children, their education may suffer a big setback and they may lose precious time in their journey of educational advancement.

Video-sharing platforms such as You tube are also utilised by the governments to provide education and to give instructions relating to the lessons to children. For instance, Directorate of Education, Government of National Capital Territory of Delhi, is broadcasting the content based on the class 12th syllabus for the benefit of children through its YouTube channel. The content and instructions are not always accessible to children with blindness. One student of class 12th said, "sometimes, the educator uses the visual aids while teaching and keep on referring to them during the online class. I cannot understand the whole content since the educator/teacher sometimes does not explain the visual content for the benefit of those who find it difficult to see and understand such content."

One of the preferred ways to impart education during COVID-19 is to deliver the study material over any online service. For example, teachers are sending study material over instant messaging apps, but the material is not always accessible to children with blindness. For instance, the content could be in unreadable formats such as images, unformatted/badly formatted documents and hand written text. These kinds of files are not accessible to children with blindness who use a screen reading software on their mobile phones/computers. For instance, one student of class 8th studying in mainstream school and who uses screen reader on her phone complained, "although teachers are providing us the study material, I cannot access most of the material because the material is either in hand written text or in image format. The screen reader on my phone does not recognize and read such text." Not only children who use screen reading software are facing such difficulties in accessing the study material, but children with low-vision are also experiencing

such issues. If the quality of the document is not good and the text is not clearly legible, children with low vision find it difficult to read the same. One student of class 12th studying in mainstream school said, "my teachers keep sending me the study material on WhatsApp but I find it difficult to read most of them because the material is either hand written or scanned images of some text. It is difficult for me to read such text on my mobile phone because it puts extra strain on my eyes and I experience head ache if I read for long on my phone".

The students are also facing difficulties in obtaining education in vocational subjects such as physical education, music etc. One student studying in class 12th having vocal music as a subject said, "although we are having our music class on Google Meet and teacher is trying to help us out, it is difficult to learn subjects like music online and that too without any instrument to practice with at home." Another student of class 11th having vocal music as a subject said, "we are having online music class but I am not comfortable in singing alone, I prefer to learn by singing in group but that is not possible online because everyone does not have good internet connection." Not only this, students having music instrumental are facing more severe problems as they do not have those instruments at home and they cannot practice what has been taught to them in the online class. A student said, "I am learning Sitar as part of my music instrumental course. Without an instrument (in this case, Sitar) there is no use of online class, at least in music, because I cannot practice what I have been taught." Another student of class 12th having physical education as a subject said, "I have board exams this year and physical education has 70% component of practical examination. Since classes have turned to online, nothing much has been taught in physical education. I fear if the situation does not normalise soon and classes continue in online mode, my result can be impacted because of physical education".

Conclusion

It is clear from the above discussion that children with blindness are facing various difficulties in pursuing their studies during the COVID-19 pandemic. The difficulties range from the unavailability of study material in accessible and preferred formats to the unavailability of Braille writing tools to untrained teachers in distance mode education to the difficulties in pursuing vocational subjects such as music, physical education, computer etc. in which practical plays a crucial role.

So far, the government has not come up with guidelines regarding how to teach children with blindness during COVID-19. The government should formulate expert guidelines to teach children with blindness and make them applicable across the country allowing state governments to make suitable modifications according to the local conditions and prevailing circumstances. Non-governmental Organizations (NGOs) and civil society can play a crucial role in assisting the children with disabilities/ blindness in the pursuit of their education during the closure of schools. The organisations that can assist and support children with disabilities/ blindness should be identified by the local administration and appropriate training should be imparted using digital platforms.

Most of the teachers are trained in teaching the children in physical classrooms and they are not equipped with any proper training or information regarding how to teach the children online in distance education mode. Furthermore, most of them are also not trained to use various digital teaching aids and appliances. The government should train all the teachers through various modes in teaching the children through distance mode education, using different technological tools and appliances. The teachers who are teaching children with disabilities in general, and children with blindness in particular, should also be trained in using the various assistive technology available to teach such children. Moreover, children with disabilities, including children with blindness should also be informed about the different assistive technology available for them in the market. There are various online digital platforms that are available where a lot of study material is available in an accessible and easy-to-use format. The children should be informed about these online digital platforms with proper training, guidance and demonstrations about using such platforms for accessing the available resources.

There may be many children with blindness who do not own any device such as mobile phone, tablet or laptop to continue their education due to the closure of schools owing to COVID-19. The government should identify such children with the help of schools, local administration and civil

society and should consider providing them the required devices through the Assistance to Disabled persons for purchasing/fitting of aids/ appliances (ADIP) scheme, to enable such children to continue their education during this unprecedented time. Our response during and after COVID-19 will ensure the extent to which we will be able to achieve the sustainable development goals (SDGs). One of the goals of SDG is to achieve equitable and accessible education to all, including children with disabilities.

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