

Original Article

Impact of COVID-19 on the Lives of the Visually Impaired

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Abstract - COVID-19 has harmed the lives of people with disabilities. People with visual disabilities have faced many challenges, from being at a higher risk of contracting the virus due to their dependence on touch to move around to experiencing loneliness and anxiousness about the unknown disease. The present study focuses on understanding the pandemic's effects and lockdown's effects on the lives of visually impaired people residing in the Blind Relief Association, New Delhi, India. The sample group consists of 13 adults between the ages group of 18-31 years. The research was conducted through interviews with visually impaired adults residing in Delhi. A thematic analysis was conducted to extract common themes and discuss them further. It was found that many people reported feeling scared or lonely during the pandemic and found it hard to stay at home. The main problems were also loss in income and disruption in studies. The pandemic poses a high risk to people with visual disabilities. Measures should be taken to ensure that they are aware of all the rules that must be followed and to reduce their stress and anxiety levels.

Keywords - Anxiousness, COVID-19, Challenges, Lockdown, Visually impaired.

1. Introduction

COVID-19 is caused by a virus known as SARS-CoV-2. The virus has infected more than 499 million people since 13th April 2022 (WHO, 2022). It is mostly transmitted through the air contaminated by the virus's droplets. It can be spread amongst people when they talk, breathe, sneeze or cough; it can also spread by contact with a contaminated surface (CDC, 2022). The most common symptoms include fever, fatigue, coughing, shortness of breath, and loss of smell and taste. Besides physical symptoms, COVID-19 can also lead to increased stress, anxiety, and loneliness levels in the general population (Shukla, 2021).

The pandemic has had a massive impact on people's lives, whether economic or social. A report presented by the UN World Tourism Organisation (UNWTO) said that international tourism and other related industries experienced an estimated loss of \$2.4 trillion due to the drop in the number of people travelling internationally (UNCTAD, 2021). Uncertainty and fear about the virus have also harmed people's mental health. In Canada, unemployment due to the pandemic led to a predicted increase in the number of suicides committed yearly (Mclyntyre, 2020). It was seen that exposure to news about COVID-19 caused greater stress in adolescents. According to the World Health Organization (WHO), global levels of anxiety and depression increased by 25% (World Health Organization, 2022).

The COVID-19 pandemic also greatly affects the lives of people with disabilities (Pineda, 2020). In February 2021, in Great Britain, around 35% of disabled people said that the pandemic had affected their lives, compared to

only 12% of non-disabled people (Office for National Statistics, 2021). 21% of disabled people said that the pandemic had affected their education, and 79% of disabled people reported greater stress and anxiety levels due to the pandemic (Office for National Statistics, 2022). They might not be able to rely on their normal caregivers and might be more susceptible to the disease due to other underlying conditions (Boyle et al., 2020). People with physical, mental, or sensory disabilities have greater health needs but are more likely to have discriminatory laws and lack health services (UN News, 2020). Among people with disabilities, around 253 million have some form of visual disability. They face many daily challenges- from being unable to read instructions on medicine packaging to not being able to figure out if they are in the right place. These individuals might be disproportionately affected during the pandemic. The first problem they face is the lack of access to information about the pandemic. A lot of visually impaired people might not be able to read due to lack of education, and those who can require it to be in the form of braille or online recordings. In the UK, the literacy rate for blind people is only 4%, while it is only 1% in India (Quallen, 2020). Since these modes of information might not be easily available, they are at risk of being misinformed about the correct measures to be followed. The government does not advise avoiding contact with outside surfaces during the pandemic.

However, people with visual disabilities depend on their sense of touch to move around (Heller, 2012). Since the virus can spread through a contaminated surface, they might have a higher risk of contracting it. These individuals might face difficulties wearing a mask for a long period and washing their hands. People with visual



disabilities depend on guides to move around but might not be able to do so because of social distancing norms (Massachusetts General Hospital, 2020). They could face difficulties doing things they usually depend on others to help them, such as crossing the road. They usually have to hold the other person's arms or shoulder to walk, which requires them to be in close contact with the person (Firmanda, 2020). Assistive devices such as their walking canes must be disinfected regularly to avoid contact with the virus since it can be spread through contaminated surfaces (World Health Organisation, 2021).

The Government of India announced various phases of a nationwide lockdown and safety precautions such as washing hands regularly, staying at home, and following social distancing rules. Visually impaired individuals might find rules such as social distancing and washing hands difficult since these measures mainly rely on visual functions. Information about the pandemic may be available to the general public, but people with disabilities might find it hard to access this information (Senjam, 2020). Individuals who require medical care, such as eye problems or injuries, might be at a higher risk of infection due to the number of COVID-19 patients in hospitals. Individuals with visual disabilities risk contracting the virus due to inadequate personal sanitation and hygiene (Senjam, 2020).

2. Methodology

2.1. Aim of the study

The study aims to explore the impact of COVID-19 on the lives of people with visual disabilities

2.2. Research Design

The research conducted was a phenomenological, qualitative study. In a phenomenological study, the participants' personal experiences and perceptions are of primary concern. This kind of method was adopted to gain a better understanding of the lives of the people. A qualitative study is not focused on analysing and understanding numerical data. Instead, it focuses on the individual's behaviour and experiences, which cannot be quantified easily.

2.3. Consent and ethical issues

All ethical considerations were followed for the current study. Informed consent was taken from all the participants in the study. All participants knew the

conversation would be recorded, and their consent was taken. The confidentiality of the responses was maintained- no information would be disclosed to a third party. The subjects' privacy was also maintained- no names were mentioned, and neither were any pictures in the paper. All ethical guidelines for research were followed.

2.4. Sample

The sample consisted of visually impaired adults who were between 18 to 31 years old. A total of 13 individuals were interviewed, which included 6 men and 7 women. All the people had been living in Delhi for at least a few months. Still, most were originally from different states, including Bihar, Uttar Pradesh, Rajasthan, Karnataka, Chhattisgarh, and West Bengal. All the participants spoke Hindi fluently, which was the language of the interviews.

2.5. Scales used

A questionnaire consisted of 14 questions, with a few additional questions in the beginning that asked the participants about their names and age. The questionnaire first asked the participants about their families and where they were from; it included a section in which participants could freely express their views about the pandemic and lockdown. They were asked about the various rules that had to be followed and their experiences with them; the questions also focused on the mental well-being of the individuals, with some questions focusing on things like loneliness, fear, and social support.

2.6. Data Collection procedure

Data were collected through personal interviews with each participant, who were all visually impaired. They were all asked the same questions, and the conversations ranged from 4 minutes to 13 minutes.

Thematic analysis was used to analyse the data. All the interviews (in audio form) were transcribed verbatim. The next step included highlighting information in the text that was unified by a common theme. Some examples of a theme include "Role of the government during COVID" and "Impact of COVID on mental well-being." These themes include various sub-themes, including "Government/authorities should have helped" and "The person felt lonely during the lockdown" for each of the previously mentioned themes. In the final step, all the themes were considered to write a discussion section, in which the implications of these themes were analysed.

3. Results and Discussion

Theme	Example Quote
1. Rules and Regulations during COVID-19	
<ul style="list-style-type: none"> <i>The person did not face any specific problems/difficulties with these rules</i> 	No, I did not have any problems. I feel like handwashing and everything. We should be doing all these things even if there is the corona. These rules are for our benefit only.
<ul style="list-style-type: none"> <i>The person faced difficulties while following the rules</i> 	It was hard because it was insulting. They were telling us not to go to people who had covid. Otherwise, we would get it too. I was like, this is needless nonsense.
<ul style="list-style-type: none"> <i>The person was well aware of all the rules and precautions that had to be followed during the pandemic</i> 	Yes, ma'am, we were following all rules. Sanitising, washing hands again and again
<ul style="list-style-type: none"> <i>Other types of precautions that were carried out (the ones not advised by the government)</i> 	We lived in a hostel, and our teacher told us to drink Haldi-pani.
<ul style="list-style-type: none"> <i>How did the person get to know about the rules/ sources of this information</i> 	Ma'am, I used to listen on the TV and mobile
2. Impact of COVID on the Mental Well-being	
<ul style="list-style-type: none"> <i>The person felt lonely during the lockdown</i> 	Everybody left; only 8 students in total remained in a place where 30 students used to live together. Would we feel bad? We would feel angry and sometimes cry silently.
<ul style="list-style-type: none"> <i>The person felt scared/ worried because of covid</i> 	Yes, I used to feel very scared when they talked about the number of cases, like how many cases happened in a day. I would wonder if the world would live or not- I felt scared about it.
<ul style="list-style-type: none"> <i>The person had someone to talk to about these feelings during the lockdown</i> 	Ma'am, just talking to family back at home, talking to friends, and playing Ludo and all, we spent time like this
3. Contracting Coronavirus	
<ul style="list-style-type: none"> <i>The person did not have covid during the pandemic</i> 	- Have you ever gotten covid? -No ma'am
<ul style="list-style-type: none"> <i>The person knew someone who had covid (family/friends/close people)</i> 	So my uncle got covid, and they kept him for a month, and everyone in my home was worried- what happened? What will we do?
4. Experiences during the lockdown	
<ul style="list-style-type: none"> <i>Recreational Activities that the person undertook to pass the time at home</i> 	Then somebody suggested that I should start a small business at home. So I bought some t-shirts, and I sold them.
<ul style="list-style-type: none"> <i>The person felt like going outside/ felt like it was hard to stay inside all the time</i> 	Yes, that did happen. I felt like going outside.

<p>5. Problems faced due to covid</p>	
<ul style="list-style-type: none"> <i>The person faced problems in studying / their studies were interrupted because of covid</i> 	<p>And then after our exams got cancelled, we felt sad, because we had studied with so many difficulties and now they were cancelled.</p>
<ul style="list-style-type: none"> <i>There were income-related issues due to the lockdown- the loss of jobs led to a loss in the income</i> 	<p>I had no income during the lockdown; my shop was closed- I have a shop</p>
<p>6. Role of the government during covid</p>	
<ul style="list-style-type: none"> <i>The government/authorities should have helped</i> 	<p>Because of this, I'd like to say that the government- if anything like this happens and there are any problems- should focus on disabled people. They should focus on their pensions. If their pensions get stopped, that should not happen because they need to buy all the generic vegetables and masala to manage their families or to manage even if they are alone</p>

Fig. 1 Thematic Analysis of the impact of COVID-19 on the lives of visually impaired people

The COVID-19 pandemic has harmed the lives of people with disabilities. People with visual disabilities are also at higher risk of contracting the virus. They face many challenges in their everyday lives, and the pandemic has only contributed to their difficulties.

To learn more about the impact of the pandemic and the lockdown on the lives of visually impaired people, interviews were conducted with people with visual impairment, the results of which are discussed below.

3.1. Rules and Regulations during COVID-19

The first theme discussed is the rules and regulations followed during the Coronavirus pandemic nationwide lockdown. These rules and regulations were enforced to curb the spread of coronavirus and were mandatory for every citizen to follow. There were numerous emerging themes discussed below.

3.1.1. The person was well aware of all the rules and precautions that had to be followed during the pandemic

All the people interviewed were aware of the rules that had to be followed, which shows that visually impaired people were not necessarily unaware of the rules and knew about what was happening. One of the respondents shared, "we were following all rules. Sanitising, washing hands again and again."

3.1.2. How did the person get to know about the rules/ sources of this information

These rules were often broadcasted over social media, television, and radio to make people understand the gravity of the disease. Most people cited news channels as the primary source of information about the pandemic. While most people appreciated the news during the pandemic, others believed that all the circulating rumors and misinformation led to increased anxiety. News channels should be careful of the information they are providing the public since it can influence their opinions and cause fear if reported incorrectly. It has been seen that the very nature

of COVID-19 news can lead to distress among individuals. These effects are worse when the news covered is biased or false. Misleading articles and news coverage lead to general misinformation and biases in people's minds (Su et al., 2021).

The corona helpline set up by the government and the regular announcement of guidelines before each phone call proved important sources of reliable and legitimate news. Steps taken by the government in other countries have also helped spread accurate news to the people- In Finland, the Prime Minister's Office, along with the private sector and National Emergency Supply Agency, has been working with social media influencers to provide younger people with accurate and reliable news; the State Chancellery in Latvia launched a 24/7 government hotline that provides information on COVID-19 related issues (OECD, 2020).

3.1.3. The person faced difficulties while following the rules

Wearing masks was revealed to be a problem many people faced since it made breathing harder and felt tight around their ears. Masks have shown multiple side effects- they can cause rashes and acne on the skin, lead to bilateral headaches and contribute to shortness of breath and fainting (Esmaeilzadeh, 2022). The new precautions during COVID have proved troublesome for people with disabilities. They face new problems- blind people who depend on guides to move around would find it hard to do so because of social distancing; people who have hearing loss would not be able to understand what the other person is saying due to the masks covering the lower half of the face (Shakespeare et al., 2021).

3.1.4. The person did not face any specific problems/difficulties with these rules

Most people did not face any problems while following COVID-19 precautions, apart from wearing masks regularly. Even though social distancing and wearing masks impacted the lives of visually impaired

people, they understood the gravity of the disease and followed all the necessary precautions. They believed these rules were for our safety; hence, there should not be any problem following them. The people did not require the support of other people to carry out all these rules and were responsible enough to carry them out themselves. "Ma'am, there was no problem in following the rules. We have to follow the rules."

3.1.5. Other types of precautions that were carried out (the ones not advised by the government)

Apart from the rules enforced by the government, some people followed other precautions (those not enforced by the government) as well. Some of them included having boiled water with salt and vitamin tablets regularly. Although people have been advised to take supplements like Vitamin C and iron since the pandemic's beginning, there is no concrete evidence that taking these supplements helps prevent COVID-19 (Mayo Clinic, 2022). A study conducted to determine if taking high doses of zinc or ascorbic acid helps reduce the severity and duration of symptoms concluded that people who were treated with high doses of zinc gluconate and other supplements like ascorbic acid did not show any reduction in the duration of the symptoms of COVID-19 (Thomas et al., 2021). Although taking supplements is beneficial for those who have deficiencies and help improve immune systems, there is no proof that they help fight the Coronavirus (Shmerling, 2021). It is better to rely on instructions given by reliable and legitimate sources like the WHO rather than following unproven theories.

3.2. Impact of COVID on the Mental Well-being

The second theme describes the impact of coronavirus on the mental well-being of visually impaired people. It focuses on the levels of loneliness and fear during the lockdown and whether the person had to share their feelings with someone.

3.2.1. The person felt lonely during the lockdown

Under this theme, a sub-theme emerged, which indicates how constantly being at home is one of the factors contributing to loneliness and boredom during the pandemic. This feeling of loneliness because of social isolation has many negative effects. A study of approximately 200,000 participants showed an increase of 5% in global loneliness levels across individual studies (Ernst, 2022). Loneliness and isolation can also contribute to anxiety, depression, PTSD, and fatigue in the general population (Banerjee, 2020). Fear, anxiety, and increased worry have been the major psychological consequences of the pandemic (Arora et al., 2020).

3.2.2. The person felt scared/ worried because of covid

Many people also said that they felt scared during the pandemic. It tells us about the psychological impact of covid on the population. Increased anxiety, fear, and loneliness have been reported after long periods of social isolation (G Serafini and others, 2020). People revealed

that they felt scared because they feared they might die or that something would happen to their family. Independent studies have shown a link between fear of COVID-19 and anxiety. A study that focused on the level of anxiety and stress in undergraduate students showed high levels of stress, anxiety, and depression during the pandemic (Rodriguez-Hidalgo et al., 2020).

3.2.3. The person had someone to talk to about these feelings during the lockdown

Social support was an important indicator of the well-being of these individuals. Many respondents said they felt better at home and with their families during the pandemic. They had someone to talk to if they felt lonely or scared and did not have to worry about social distancing and other rules inside their house. Those who were living away from their families reported feelings of worry and fear in their families. It was also seen that it was comparatively easier for the individuals living with their families since there were no restrictions.

"Our family members were worried so that we would comfort them. They would say, how will you come here if you're stuck? How will you come here if you get ill?" A few did not have phones, so they had no way of contacting their families and talking to them. They felt much better talking to their family and friends face-to-face instead of on the phone.

3.3. Contracting COVID

This theme discusses whether the individual had COVID themselves or knew someone who did. It also covers the individual's perceptions about other people infected with the virus.

3.3.1. The person did not have covid during the pandemic

Only one person reported having COVID during the entire pandemic, and the rest had not ever been infected. People were cautious about all the rules that had to be followed, which helped reduce the risk of getting infected. "No, we just followed all the rules and regulations- washing hands repeatedly, sanitising hands, wearing a mask all the time, we never met anyone."

3.3.2. The person knew someone who had covid (family/friends/close people)

A few of the people reported that they knew someone who had COVID. All of them reported that their family members were very troubled and that the infected person faced many difficulties.

"Yes, I know. I had one, ma'am- Anshu. She's from Bihar and used to teach English. She could not even talk. When we asked her about her health, she said her body hurt greatly. There were 7 members in her house and 1 maid too- all of them got covid. So you can understand that 8 members had covid, and her family was closed off. Her situation was very bad. She had medicine for about 2-3 months. Her body was breaking, and she was very troubled."

3.4. Experiences during lockdown

The fourth theme discusses the personal experiences of the individual. Most people said they could not leave their houses due to the lockdown. The next two sub-themes discuss experiences about staying at home and the activities undertaken to help with boredom.

3.4.1. The person felt like going outside/ felt like it was hard to stay inside all the time

During the lockdown, people were not allowed to leave their homes or go outside due to the lockdown imposed by the government, but many people revealed that they missed being outside.

"No, sometimes you wish that you went out and enjoyed yourself. I wanted to go but did not, and then I felt bad about why the lockdown and corona happened. So I used to feel bad about that."

3.4.2. Recreational Activities that the person undertook to pass the time at home

Most people reported feeling bored because of staying inside their homes. People undertook various activities during this time- one started their own business while others turned to listening and recording music. It has been seen that music played an important role in people's lives during the pandemic, and it has been associated with better management of emotions (Carlson et al., 2021). The amount of time spent on leisure activities was also seen in students and those unemployed. Creative activities such as music, crafts, and those related to language also saw an increase during the pandemic (Morse et al., 2021)

3.5. Problems faced due to COVID

This theme discusses the two major problems many faces due to COVID. It includes the disruption in studying, the transition to online learning, and a loss in income and jobs during the lockdown.

3.5.1. The person faced problems in studying / their studies were interrupted because of covid

One of the main problems the people faced was disrupting their studies. The sudden transition to online mediums like Zoom or Google Meet was hard since the subjects had never heard of such applications. In houses with multiple kids, there was a shortage of devices. One of the main problems in the rural areas was bad network coverage. A study conducted in India showed that around 18% of the kids who participated reported having problems like headaches, strain, and lack of concentration. 94% of the respondents in that study said they preferred the offline mode of education, and 95% preferred learning in a school (Selvaraj et al., 2021).

3.5.2. There were income-related issues due to the lockdown- loss of jobs led to a loss in the income

There was also a loss in income and jobs due to COVID-19. The people's family members lost their jobs during the pandemic. The shortage in the number of working hours has lowered the median income rates. The Asia-Pacific region's income levels were estimated to fall

by 10% in the first three quarters of 2020. The poverty rates could also increase due to the loss of jobs- it was believed that an additional 22 to 25 million people would fall into working poverty in the Asia Pacific region (International Labour Organization, 2020).

3.6. Role of the Government during COVID

This theme focuses mainly on what the government could have done to help ease the stress in people's minds. It includes suggestions given by the respondents themselves, as well as the problems they faced.

3.6.1. Government/authorities should have helped

One of the respondents said they did not receive any help or support from the government or the *sarpanch*. The respondents felt that the government should focus on the problem of disabled people. One of the people said they got help in the form of rations, while another said that many were getting rations, but they did not. People said they should continue getting their pensions and salaries even if the company is closed. It should ensure that everyone benefits from its reforms and plans, and special emphasis should be placed on the disadvantaged sections of society.

Due to the high level of risk that this pandemic poses to people with visual disabilities, certain measures should be taken to reduce the stress and fear in the minds of such individuals. Visually impaired people should be aware of the importance of wearing masks, washing hands regularly, and avoiding touching their face after touching surfaces since it can spread through the nose or eyes. They should be educated about the potential risk associated with the disease and should be trained to follow the given guidelines in a way that does not affect them adversely. They should be given access to information regarding the pandemic in a way that is accessible to them. For example, text-to-speech software is of great help to people who cannot read directly from the screen. Proper measures should be taken to help visually impaired children whose education was disrupted due to the pandemic. They might find it difficult to adapt to the online mode of education and should be given proper support to ensure their education is not hindered. These steps will help alleviate the fear in the minds of visually disabled people and provide them with some comfort during the pandemic.

4. Conclusion

After thematic analysis, it was found that most of the people in the study followed the rules and regulations advised by the government. They were all aware of these rules and were told about them constantly, whether through external sources like news channels and radios or by their family members. Many people reported being lonely during the pandemic and wishing they could leave their homes. Social support proved to be very important since many participants reported feeling better after they had talked to someone (their family members or friends), and those who had not received any support during the

pandemic said that they wished that the government had helped them (in case of their income or rations) and that they faced problems when they were living alone. Loss in around 1-2 years of studies was also seen as a problem by some students who expressed disappointment when their exams got cancelled and found it hard to catch up in the online mode of study.

To alleviate the fears in the minds of visually impaired people, steps should be taken to ensure that they are aware of the potential risks and precautions that can be taken to reduce the likelihood of contracting the virus. Proper support should be provided to make it easier for them to transition to a new way of life. The government should focus on the needs of these people to ensure all of them equally benefit from the policies implemented and should take measures to sustain their livelihood.

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Limitations

The sample size of the survey is one of the main drawbacks. The research could have been more accurate if more people from different backgrounds could have participated in the interview. Due to COVID-19 restrictions, the amount of interaction with the participants was limited.

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