



Mental Health Implications of Covid-19 on Visually Impaired Students in Bangladesh

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ABSTRACT

This article focuses on the effects of Covid-19 on the mental health status of visually impaired students in higher education in Bangladesh. This paper has been conducted following the case study approach and substantiated them with qualitative interview by following purposive sampling of the majority of the total population. We have been inspired by the interpretivism as we had to consider our samples' perceptions, behavior and experiences to make out the facts. By analyzing our data thematically, we find that the Covid-19 Pandemic situation had greatly affected the mental health status of visually impaired students due to the challenges of online education and technological difficulties. At the same time, they got an opportunity to spend quality time with their family members and develop their skills. In sum, our study extensively provides an illustration of the overall perception of the visually impaired students about their mental health status during the Covid-19 situation. At the same time, it can make related authorities concerned to adopt effective policies for the betterment of mental health status of visually impaired students in post Covid-19 period.

Keywords: Covid-19; Mental health status; Visually impaired; Higher education

INTRODUCTION

The Covid-19 was discovered in China and spread to other countries of the world which brought the whole world to a standstill. Covid-19 enhanced human sufferings, made the economy fall down and the lives of the billions of people around the world in a deadlocked situation, conspicuously affected the health, economic, environmental and social issues. At the same time, corona virus had a huge impact on higher education by limiting student's attendance on campus and forcing them to depend much more on online activities. But for disabled students, experience of online higher education was characterized by many difficulties. An estimated 216.6 million individuals worldwide have moderate to severe visual impair-

ments which is the 2.71% of total world population. As they are disadvantaged marginal group across the world they are deprived of several opportunities. Specially this group doesn't have enough access to higher studies as the education system of most of the countries has lack of essential reading materials and procedures for them. They have to face big challenges to cope up with conventional education system.

Due to the challenges of online education and the overall negative situation including the fear of death and the anxiety of being affected during the pandemic, mental health status of the visually impaired students was likely to be overripened severely. However, Covid-19 situation didn't have only negative impacts on the mental health as many students had got the op-

Received:	01-August-2022	Manuscript No:	IPDEHC-22-14439
Editor assigned:	03-August-2022	PreQC No:	IPDEHC-22-14439 (PQ)
Reviewed:	17-August-2022	QC No:	IPDEHC-22-14439
Revised:	22-August-2022	Manuscript No:	IPDEHC-22-14439 (R)
Published:	29-August-2022	DOI:	10.21767/2049-5471.22.19.41

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Citation Talukdar S, Hasan MB, Azmey A (2022) Mental Health Implications of Covid-19 on Visually Impaired Students in Bangladesh. 19:41.

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portunity to learn something new to enhance their skills during the lockdown, and students had been able to spend time with family members during this time, which could have a positive effect on their mental health. The focus of this paper is about the mental health of visually impaired students of higher studies at the time of Covid-19. Visual impairment includes low vision or blindness and refers to any degree of impairment to a person's ability to see that affects his or her daily life. Mental health is a state of well-being in which an individual realizes his own ability, can cope with normal stresses of life, can work productively and is able to make a contribution to his community. The research questions of this paper are how Covid-19 affected the mental health of visually impaired students in higher education while the objective of this study is to gain qualitative insights into the mental health status of visually impaired students; how they cope with the new normal situation of Covid-19 and how they overcome their journey in this adverse situation. This study would also try to make some recommendations for different authorities like University administration, policy makers and related institutions that would be helpful to improve the mental health status of the visually impaired students in post Covid-19 circumstances. This paper will contribute insights about Dhaka University's visually impaired students' mental health during Covid-19 and the challenging experience.

Literature Review

Since visually impaired people had faced more barriers than the general population during the Covid-19 period, several studies have been done based on their difficulties. Mahfuz, Sakib and Husain focuses basically the educational affairs of visually impaired students in Bangladesh. Their research guided by both qualitative and quantitative method, intends to analyze the quality of technological facilities that was provided to visually impaired students of higher studies by their educational institutions and how those students tried to cope up their online education. Dube and Baleni has studied the experience of higher education students with disabilities in South Africa collecting data by semi-structured interviews and analysed by thematic analysis. Hanjarwati and Suprihatiningrum have studied the voice and experience of students with disabilities in UIN Sunan Kalijaga. Results of this study show that students prefer face-to-face education rather than online. They have faced some challenges in online education compared to face-to-face learning, such as high Internet costs and inaccessibility in an e-learning system. Students are also concerned about their opportunities and privilege, which they generally get in face-to-face education for their disabilities. Those challenges may impact the mental health of students with disabilities in higher education.

Osman and Kevy have studied the impact of COVID-19 pandemic on education in commonwealth countries. Students with disabilities and marginalized group in society faced huge challenge to access in education. This article states that inequalities and exclusion in education due to corona pandemic may impact on the mental health of all types of disabilities. It doesn't focus on other issues related with mental health. Senjam and Suraj have studied the impact of corona virus not specifically on the visually impaired students rather viewed COVID-19 pandemic challenged our general life style. These challenges have been more intensive for visually impaired member in society.

The restrictions imposed by the government such as, Social distance, limiting touch or tactile contact made the life of visually impaired people so much challenging. They got little access in healthcare, education and other basic social services.

United Nations has figured out that Corona pandemic has deepening the preexisting inequalities to disabilities and vulnerable. Person with disabilities were at high risk developing more severe health conditions and dying from COVID-19. They have faced discrimination in healthcare services and got little access in education. Author recommended to address indoctrinatory policy which will be inclusive for disabilities and vulnerable persons. Inequalities and exclusion from social services and education may damage the mental health conditions of people with disabilities. The report of UNESCO has made a case study on Bangladesh about the accessibility of disabilities in technology based education during corona pandemic. Corona pandemic posed challenge in national education system. The vulnerable and disabilities have been affected disproportionately. National Preparedness and Response Plan (NPRP) for COVID-19 didn't give special attention to vulnerable and disabilities. This report has emphasised that Accessible Reading Materials (ARM) initiative can be a potential way of inclusive education for disabilities if policy maker pays high attention. Firmanda shows that the COVID-19 pandemic has negatively affected all the people. But peoples with disabilities (mostly visually impaired) are more negatively affected. The first and biggest challenge was the limited access to information about COVID-19. Because, during covid-19, information in brailled form was almost absent. Many not have a Television at home which prevents them from getting information. As a result, health and prevention protocols were ignored. Visually impaired students require sense of touch to recognize the environment. But physical distancing rules of covid-19 deter them to move freely. During covid-19, learning process was completely online based. Mostly required element of online education for visually impaired students, screen-reader software was not available. During covid-19, almost every student was scattered. The absence of companion to explain study materials to visually impaired students hampered their learning process.

Gin et al. (2021) examine the experiences of 66 students with disabilities enrolled in undergraduate STEM courses during the rapid transition to online instruction due to the COVID-19 pandemic. It is found that students with disabilities were often unable to access the accommodations that they have used in-person courses, such as reduced-distraction testing environments, additional test time, and note-taking. It is also identified that the transition to online instruction resulted in novel challenges for students with disabilities who required additional accommodations, such as closed-captioned video lectures and adapted test proctoring. Finally, this study uncovers barriers that prevented students from effectively and efficiently receiving needed accommodations for their online instruction during the COVID-19 pandemic. Borkin has studied the key challenges of disabled students as a result of the shift to remote teaching and learning due to Covid-19. Suaraweera, Hasintha and Gunasekara, have studied the challenges of covid-19 experienced by the blind people in the light of their social and economic life. For this study the authors used semi-structured interviews for data collection and targeted population is blind people in Sri

Lanka. In the covid-19 pandemic shutdown the blind people of Sri Lanka face many challenges like mobility and transportation, accusation of daily needs, disturbed social interactions, income earnings opportunities and information and communication. Berg-Weger and Marley, Repke and Ipsen states that pandemic people with disabilities are pushed towards social exclusion and that lead to deteriorate the mental and physical health conditions of disable people. This paper has not focused on especially visually impaired students. Smith explains the challenges and difficulties which the disable students had faced during the corona pandemic. Due to the corona pandemic the education system was taken to the online platform as a whole all of a sudden without any kind of preparation. There were no such special initiatives for the disable students. The COVID-19 pandemic has exposed equity issues and challenges faced by all students, but especially for students with disabilities. Many of the students did not have appropriate technology devices needed for an online learning environment.

Mike Wary and Warwickshire have described the barriers and enables of disabled learners's experiences during their journey to higher education comparing the experiences of the disabled students in higher education with the non-disabled students in higher education. Disabled students discriminating in their access to education whereas the nondisabled students get proper access to higher education. UN Partnership on the Rights of Persons with Disabilities, substantiated the low accessibility of platforms and learning materials of disabled students fall impacting on their way of higher education. While there has been much research of the impacts of online education on disabled students of higher studies, none has focused specifically on the mental health of visually impaired students of higher education in Bangladesh during the pandemic. Consequently, we do not have plan of action for physically challenged people in any future pandemic era for creating inclusive society for all. This paper also illustrates the policy recommendation for encompassing this marginal group of the society.

THEORETICAL FRAMEWORK

In our research question, there is one independent variable that is the Covid-19 pandemic situation and the outcome variable is the mental health. We can define Covid-19 situation by some factors for example: Severe lockdown, Online education, Social distancing, Maintaining isolation etc. The outcome variable of this study is defined by WHO as "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to contribute to his or her community". Mental well-being relates to a person's psychological functioning, life-satisfaction and ability to develop and maintain mutually benefiting relationships. Psychological well-being includes the ability to maintain a sense of autonomy, self-acceptance, personal growth, purpose in life and self-esteem. Staying mentally health is more than treating or preventing mental illness. Jahoda identified 6 conditions associated with ideal mental health:

- Positive view of the self;
- Capability for growth and development;
- Autonomy and independence;

- Accurate perception of reality;
- Positive friendships and relationships;
- Environmental mastery-able to meet the varying demands of day-to-day situation. Though most recently, the field of 'global mental health' has emerged, which prioritizes equity in mental health for all people in the world? According to our perception, the mental health of visually impaired students has suffered more than that of normal students due to severe lockdowns, closure of educational institutions and isolation during the recent pandemic situation. So we will try to find out the mental health status of the visually impaired students during the Covid-19 Pandemic situation on the basis of above mentioned 6 conditions of ideal mental health. At the same time, we would try to suggest some initiatives that would be feasible for the betterment of the mental health condition of the visually impaired students in higher education.

METHODOLOGY

In this study, qualitative research design is used in a participatory format for collecting, processing and analyzing data. As 'Case study' approach has been adopted as the main method on theoretical analysis, we confined the geographic boundary of the study within the visually impaired students of University of Dhaka. As we have conducted a qualitative method that's why we have used non probability sampling specifically the 'Purposive Sampling' to select the expected sample of the total population. As the students are in higher education level, their age limit is 20-28 [Table 1 shows demographic information]. The higher education background students were selected for having more data to reach the research objectives. We do contact with an organization named PDF (Physically challenged Development Foundation) as a medium or channel, which usually collects the entire information about all types of disabled students of Dhaka University, for selecting sample. We have tried to collect data from a satisfied number of samples that is almost majority part of the total population.

Table 1: Sampling of the study.

Genre	Sub-Genre	Total	
Faculty	Social Science Faculty	12	40
	Arts Faculty	18	
	Business Studies Faculty	10	
Gender	Male	25	40
	Female	15	
Area	Lived in Rural areas during the lockdown	28	40
	Lived in Urban areas during the lockdown	12	

Primary and raw data are used here to make the research more scientific and empirical. Data are collected by telephone interviews, in person interviews and focus group discussion. The rationale for using focus group discussion method and open ended question is to provide the participants' freedom and flexibility which is very important to enhance the validity and credibility of the research. The validity of the questionnaire is checked by pre-testing. Participation observation is conducted during focus group discussion. Our data collection was driven by our objective to operationalize the requirements listed in **Ta-**

ble 2. First we looked for both the positive and negative issues that affected the mental health of the students. Then we tried to analyze the impact of those issues (**Figure 1**).

Table 2: Operationalization of criteria.

Factors	Definition	Assessment
Capability for growth and development	Role of Covid-19-19 situation on developing students' new capabilities/skills or enhancing existing ones	<ol style="list-style-type: none"> 1. How did you use your lockdown period for self-development? 2. Did you enroll in any online/offline skill development course during lockdown period? 3. Did you have to stop learning any course that you started before pandemic?
Autonomy and Independence	Persons' perception of their way of living during lockdown	<ol style="list-style-type: none"> 1. Did Covid-19 situation resist you from leading an independent life? If yes, then please describe how it did that. 1. How were you treated by your family members during the long period of lockdown? 2. Did your childhood or other friends maintain communication with you during lockdown period? If yes, then did it influence your mental health positively and if not, did it create any negative impact on your mental health?
Positive Friendships and Relationships	Visually impaired students' relationship and connectivity with their family members, neighbors, friends and teachers during pandemic.	<ol style="list-style-type: none"> 3. How did you get support from your University friends and teachers to continue your online education? 4. How did their attitude influence your mental health status?
Accurate perceptions of reality	As the pandemic situation created newly unavoidable reality introducing online classes and exams, this factor would examine visually impaired students' ability to cope with such a new reality.	<ol style="list-style-type: none"> 1. How did you feel when online class and exam started? 2. Did it affect your mental health negatively? 3. How did you continue your online exams?
Environmental Mastery	During the critical situation of pandemic, several numbers of waves were observed. Besides death rate was increasing gradually. This type of environmental situation might affect mental health of visually impaired students with the fear of being affected.	<ol style="list-style-type: none"> 1. How did you feel when different types of wave arrived and the death rate was increasing day by day? 2. Did you or any of your family members get infected by Covid-19? 3. Did any of your close people die of Covid-19? <p>If yes, then how did that situation affect your mental health?</p>
Positive View of the Self	The overall perception of the visually impaired students about their mental health status	<ol style="list-style-type: none"> 1. How did you feel about your mental health status during the Covid-19 period?

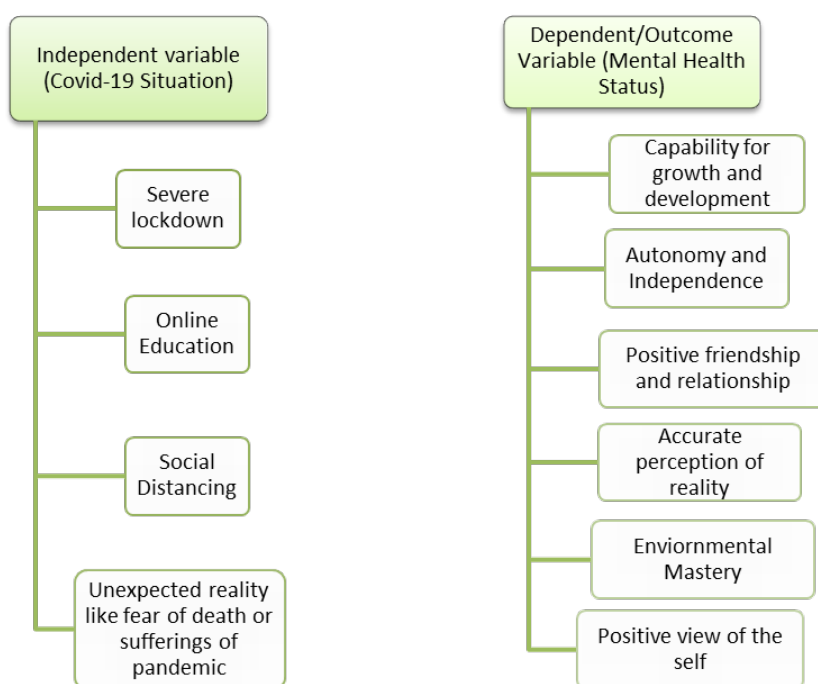


Figure 1: Defining Factors of Independent and outcome variable.

We have used thematic analysis and qualitative scaling to get an empirical result where the primary data are analyzed according to the themes. Our data collection was driven by our objective to operationalize the requirements listed in [Table 2](#).

RESULTS

After collecting primary data from our samples, we have identified both some positive and negative issues that influenced them during the pandemic period. As we explicitly set off to examine how Covid-19 pandemic influenced the mental health status of the visually impaired students we can't ignore the positive issues that helped the students to feel good in spite of having a large number of negative issues.

Identifying Positive Issues

Analyzing the interviews of our sample, we have identified two issues that positively affected the visually impaired students' mental health. The issues are as following:

Spending quality time with family members: Since the educational institutions became closed soon after the start of Covid-19, the students got the opportunity to spend a long time with their family members. As most of the visually impaired students have to stay away from their families to pursue higher education, they felt mentally better staying with their family members during difficult times like the pandemic ([Figure 2](#)).

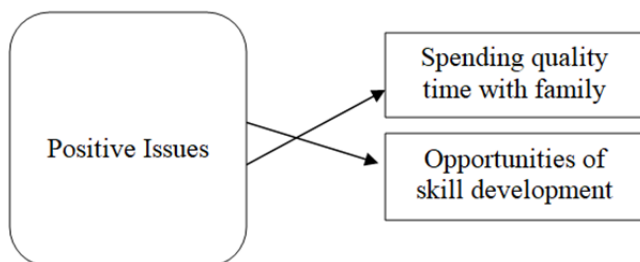


Figure 2: Positive aspects during the Covid-19 period.

Opportunity for skill development: Although there were many negative issues during the pandemic, almost all visually impaired students agreed on the positive aspects of this one issue. Most of the respondents of the total sample have informed that they had enrolled in various online and courses during the lockdown period that helped them to improve their skills and self-confidence.

Identifying Negative Issues

After interviewing our sample students, we have come to know about several issues that made them mentally anxious during the Covid-19 lockdown period. It is quite normal for everyone to be mentally worried during the global pandemic; even normal students had faced many problems during Covid-19. However, the visually impaired students had experienced a worse situation than the average students.

Financial crisis: No wonder, the Covid-19 Pandemic has caused financial crisis across the whole world. Earning members of many of our sample Student's families lost their job during the pandemic. So they had to endure immeasurable sufferings. Moreover, from the interview, we learned that a good number

of visually impaired students of the University of Dhaka returned to Dhaka even before the opening of the residential hall as there were network issues and other difficulties in rural areas to continue online education. At that time, the students had to live as paying guests or rent home. It was really expensive that caused them to be mentally unstable. Additionally, many of those students lost opportunities of earning through part time jobs due to lockdown and social distances. So during the pandemic period they faced economic crisis both in individual and family aspects. ([Figure 3](#)).

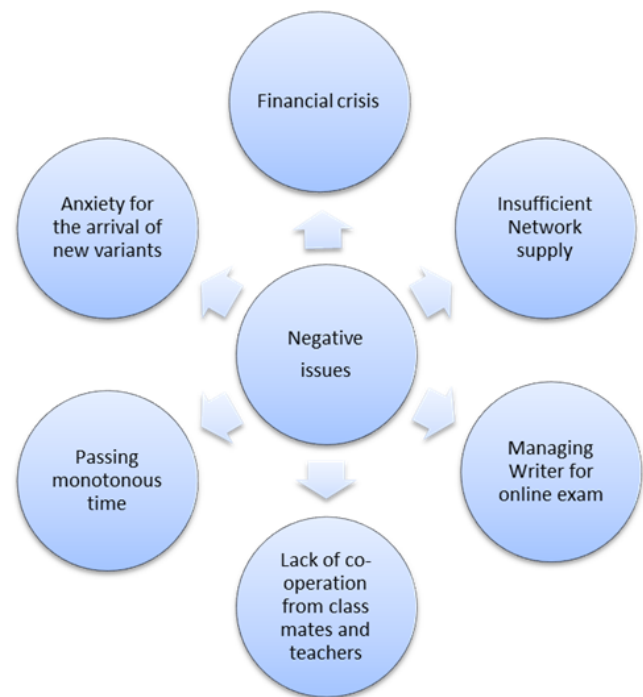


Figure 3: Negative issues that made visually impaired students more worried.

Insufficient network supply: Due to the start of online class and exams during the Covid-19 period, the mental health of visually impaired students was severely affected. As most of the visually impaired students were in rural areas during the lockdown period where there was not enough internet connection to attend online class exams, almost all of them became worried about their studies.

Managing writer for online exam: According to our interviewees, this was the most acute problem for them as there was not a single student who didn't face this challenge. In normal circumstances, it is not too difficult to find a writer for visually impaired students as there are plenty of well-wishers of visually impaired students in the University and residential hall who help them in their exams. But the interviewees reported that as they were mostly in their homes, they actually struggled to find writers for the exams. Many of them didn't have anyone at home or nearby who was proficient enough to help. Many visually impaired students took the exam with the help of their school or college-going younger siblings or neighbors. Still, most of them were worried that their exam results might be affected due to their lack of proficient writer.

Lack of co-operation from friends and teachers: Many interviewed students lamented that they did not get much help from

their classmates and teachers regarding online classes and exams. According to the respondents, the teachers did not take any alternative measures considering their physical condition. Most of the teachers used PowerPoint materials in online class so they weren't able to see those materials. Even teachers of some departments did not allow recording the online classes. As a result, they got troubles to manage their class lectures. In many cases, they also didn't get support from their classmates (Figure 4).

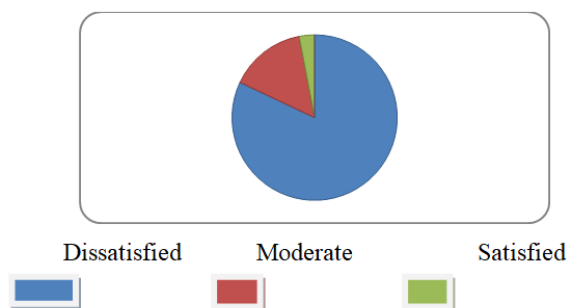


Figure 4: Visually impaired students' own perception about their mental health status during the Covid-19 period.

Passing monotonous time: During the pandemic, there was a lockdown and strict government instructions to maintain social distance across the country. That's why the visually impaired student had to pass a monotonous time. They could not leave the house, which made them mentally depressed. Another thing is that, in normal situations, most of the visually impaired students used to live in residential halls where they could live at their convenience but being stuck at home for a long time, it was seen that they were unable to do all the tasks according to their own choices. Though maintaining social distance was obvious during the pandemic normal students could spend their times by doing different activities. Since visually impaired students were not capable to do all activities like normal students, mentally they felt down passing monotonous time.

Arrival of new variants and waves: During the Pandemic situation the entire world had experienced the arrival of several new variants and waves that had caused to be more worried. With the emergence of new variants, they became more worried about overall circumstance.

DISCUSSION

In this section, we will try to make interlink between our found perceptions from the sample students and the factors that have defined the theoretical framework of this paper. To make the findings of the study more empirical, we will try to look into both the positive and the negative aspects discussed in the result section and to determine the impact of those issues on the mental health status of visually impaired students.

We have one more factor that would consider visually impaired students' overall assumption about their mental health status during the Covid-19 Period. "Positive View of the Self", in this criterion we would try to understand students' perception through a figure that would provide an explicit illustration of how positive the visually impaired students were about their mental health. We tried to get this answer through an open ended question, "How did you feel about your mental health

status during the Covid-19 period?" Their answers to this question are presented through the following figure:

We explicitly set out to understand about the sufferings of the visually impaired students and how did the sufferings affect their mental health status due to the Covid-19 pandemic situation. By collecting primary data from the visually impaired students we explored that the majority part of our sample students have been dissatisfied about their overall mental health status whereas some of them had been neutral. Our finding implies that the part which had been neutral or satisfied about their mental health barely faced financial crisis, network issues and other complications like the students who had been dissatisfied. Basically the students who were in rural areas during the lockdown period faced more challenges in online education and in other issues like managing writers. Almost all visually impaired students agreed on the issue that they could utilize the lockdown period to develop their skills. Table 3 indicates that all students didn't have negative experience in the issues of lack of freedom, lack of co-operation from friends, fear of being affected etc. As we know about the lockdown situation during the pandemic, there were quite restrictions on movement and social gatherings in urban areas. In contrast, these types of rules were not that strict in the rural areas. That's why the visually impaired students who were in rural areas had comparatively more opportunities to move freely rather than the visually impaired students who were in urban areas. Though a satisfied number of students have reported that at the beginning of the closure of educational institutions and they had a pleasant time with their family members, some students mentioned that they had to stay at home all day long, which was started to feel monotonous.

Table 3: Data Interpretation Under Theoretical Framework.

Factors of Theoretical Framework	Issues found in result section	Genre of impact of the issues
Capability for the Growth and Development	Opportunities of skill development	Highly Positive (H. P)
Autonomy and Independence	Passing monotonous time	Moderate (M)
	Spending Quality Time with Family Members	Moderate (M)
Positive Friendship and Relationship	Lack of Co-operation from friends	Moderate (M)
	Lack of Co-operation from teachers	Highly Negative (H.L)
Accurate Perception of Reality	Financial Crisis	Moderate (M)
	Beginning of Online class and exams	Highly Negative (H.L)
	Managing writer for Online exams	Highly Negative
Environmental Mastery	Arrival of new variants	Highly Negative (H.L)
	Fear of being affected	Moderate (M)

Highly Positive=Almost all students felt positive; Moderate=some students felt negative whereas some students felt neutral; Highly Negative=Almost all students were affected negatively

Some students were genuinely satisfied with getting co-operation from their friends whereas some didn't get enough support. According to some interviewees, they started their session just before the closure of the University due to the pandemic. So they didn't get enough chances to make a strong bonding with their friends. That's why they didn't get support from their classmates. Students had been very frustrated with their teachers. Almost all students said they did not get any direction or motivation from the teachers about their online studies, especially the online exams. Moreover, most teachers used visual slides in online classes to provide lectures. The visually impaired students also faced troubles to continue their studies at that time as they didn't have proper technological devices to record their online classes. In physical classes, they usually collect class lectures from their classmates and sit for exams with the writers' help. But in the online exams, they had to endure additional mental pressure to manage writers. There wasn't a single student in our sample list who hadn't faced this challenge during the pandemic.

From the **Table 3**, we can also notice some students faced financial crisis due to different reasons whereas some of them didn't have financial pressure. So, not all the students were mentally unstable due to financial crisis. An exciting part of interviewing our sample students was that the majority part of the total sample expressed that they were not anxious about the arrival of the new variant due to the fear of being affected. Instead, they were worried that the arrival of new variants and waves would extend online education. As online education had not been convenient for them, this fear had affected their mental health badly [1-16].

CONCLUSION AND POLICY IMPLICATION

Overall, we found that although the visually impaired students could use the pandemic period to develop different skills that helped them to be more confident and satisfied with their mental health, several negative issues had such a negative impact that it had made the situation worse for them. This critical situation had caused them to be more depressed and anxious rather than the regular student of higher studies.

In view of our findings, we recommend that as pandemic situation has become better and in person education has started, the University authority should take precise steps to nurture the visually impaired students. They should counsel the students to keep them mentally well and reduce their depression. Besides, their teachers should take special care of them in class to compensate for the disruption of their studies in online classes. Alternative measures should be taken for them to make their study comfortable during such adverse situations. Study materials must be available and accessible to them. University authority can arrange a fund to provide financial support so that they can overcome their financial shock. Apart from University Authority, Government can take some initiatives like mental health campaign to make their mental health stable.

As we couldn't do a broad study based on quantitative method and we had to take a small area of study due to lack of time and resources a further study is recommended based on a large sample that would be more empirical.

Based on our study, we hope the visually impaired students

would be taken under special consideration and necessary steps are required to be taken as they had to go through a severely critical situation rather than the regular students of higher education.

LIMITATIONS

Due to the limitations of time and resource we couldn't enlarge our sample size.

DECLARATION OF CONFLICTING INTERESTS

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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