EFFECT ON CHILDREN DURING ONLINE CLASSES IN COVID-19 SITUATION IN BANKURA DISTRICT WEST BENGAL

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ABSTRACT

The purpose of this study is to evaluate how the lockdown during COVID-19 affected undergraduate and graduate students attending institutions in West Bengal. The data were gathered through an online poll taken between May 1st and May 8th, 2020. COVID-19 cases, fatalities, and recoveries demonstrate macro-level variability, according to a new study. The prevalence of refractive error was documented by several research done in various regions of India.

Keywords COVID-19, Lockdown, E-learning, Undergraduate and postgraduate learners, West Bengal

INTRODUCTION

Wuhan, a city in China, was the first to see the new coronavirus illness (COVID-19) at the year's conclusion. The rapid global spread of COVID-19 caused the World Health Organization to issue a "Global Public Health Emergency of International Concern" As on March 11, 2020, it will be classified as a "pandemic". The vast majority of governments worldwide have begun working toward a shared objective to Lockdown, social/physical separation, avoiding face-to-face teaching-learning, and immigration limitations may all help stop the spread of this extremely infectious illness. About 600 million students throughout the globe are impacted. Because of the Closure of Schools (Goyal, 2020). According to a UNESCO (2020) estimate, out of India's 320 million students, 34 million are in postsecondary education.

The 2019 nCov novel coronavirus is causing widespread destruction. As of 15 January 2021, COVID-19, a virus-related illness, has claimed the lives of about 2,009,092 people in 273 nations. However, there are geographical differences in the number of cases and fatalities at the macro (and even the micro) level. Epidemiological and virological research that have been reported so far give evidence that 2019-nCov may spread from infected individuals to uninfected people by respiratory droplets or by touching contaminated items or surfaces. Inhalation of particles is a prevalent mode of transmission for the new coronavirus illness, as shown by recent research. The epidemic has been growing rapidly over the last year.

Six hundred million kids throughout the world are affected. As a Result of School Cancellation estimates that 320 million students worldwide cannot afford a university education. infected; an estimated 34 million higher education students in India fell victim. in the classroom After cataract, refractive error is the most preventable cause of visual impairment. Without corrective lenses, a person who becomes blind at a young age owing to a refractive mistake would be visually impaired for a far longer period of time than an elderly person who loses sight due to cataract. Because many definitions of blindness, including the one used in the International Statistical.

Classification of Diseases and Related Health Problems, have been focused on best-corrected distance visual acuity, refractive error as a cause of blindness has received little attention. 3 Recent efforts to eradicate preventable blindness have identified refractive error as a top priority because of the world's growing awareness of the condition's prevalence and severity. The Right to Sight by 2020: A Vision. 4,5 The prevalence of refractive errors among Indian patients visiting the eye outpatient clinic has been estimated to range from 21.5% to 25.5%. 6 The prevalence of refractive error was documented by several research done in various regions of India.

LITERATURE REVIEW

Sudipta Roy et.al (2022) Worldwide, 600 million children are afflicted. Considering the Postponement of Classes (Goyal, 2020). At least 320 million students throughout the globe will not be able to attend college due to financial constraints by 2020, according to UNESCO. estimates that 34 million Indian college students were afflicted. during class time Next to cataracts, refractive error is the leading avoidable cause of blindness and low vision. Without corrective lenses, a young person who loses sight due to a refractive error would be visually handicapped for a far

longer amount of time than an older person who loses sight due to cataract. Due to the fact that many definitions of blindness, such as the one used in the International Statistical Classification of Diseases and Related Health Problems, have concentrated on best-corrected distance visual acuity, refractive error as a cause of blindness has gotten little attention. 3 As the world becomes more aware of the frequency and severity of refractive error, it has emerged as a key priority in recent attempts to eliminate avoidable blindness. Vision 2020: The Right to Sight. 4,5 According to estimates, between 21.5% and 25% of Indian patients who attend the eye outpatient clinic have refractive problems. 6 Multiple studies conducted in different parts of India attest to the common occurrence of refractive error.

Mosharrof Hosen et.al (2022) Changing from a face-to-face to a virtual mode of instruction was a drastic response to the COVID-19, which not only affected the stakeholders of educational institutions throughout the world but also constituted a danger to the whole human race. Accordingly, this research aims, first, to identify the content analysis by interviewing tertiary students, and second, to find the frequency distribution using questionnaire generated from results of the content analysis. Forty students from different levels of education in Bangladesh were interviewed in order to get insight into the effects of the recent epidemic. According to the findings of the content analysis, those involved in higher education are facing significant challenges in the areas of mental health, finances, technology, and academia. The data from the content analysis was used to create a survey that was sent out by email, WhatsApp, LinkedIn, Telegram, Facebook, and Instagram between May 20 and May 30, 2021. There was a total of 505 complete surveys submitted. The investigation of the frequency distribution revealed that 60% of respondents do not have dedicated reading rooms. While many students utilize laptops and desktops for online courses, 21 percent of those polled reported not owning any such devices. Also, during the coronavirus epidemic, 55% said they weren't able to devote as much time to their studies. Moreover, 88% of respondents acknowledged struggling with stress, worry, or despair. Seventy-nine percent, eighty-three percent, and seventy-two percent, respectively, experienced a financial crisis, family upheaval, or internet/technology-related difficulty. Since the worldwide spread of coronaviruses is an entirely novel occurrence, there is a dearth of empirical research on the topic. Therefore, we fill in the blank by conducting an empirical study of the topic using content and frequency analysis. As such, we suggest and explore the policy implications of our findings.

Dr.M.NEELAVATHY (2020) World education has been impacted by the COVID -19 pandemic. Over 90% of the world's student population has been affected by the closure of educational institutions. Due to the extreme nature of the current COVID -19 pandemic, traditional classroom instruction has been suspended and replaced with online instruction. For the sake of maintaining effective instructional strategies in academic Consequently, our educational system has turned to the unsatisfactory online form of study. yet rapidly resolving the issue at hand. In order to evaluate how lockdown during COVID-19 affected university freshmen and grads from all throughout Madurai District's educational institutions. A digital the data was gathered through a poll administered between September 1st and 15th, 2020. A Students were surveyed using a Google form that was sent through email and WhatsApp. One hundred eighty students responded fully to the survey. In its simplest form, Participant knowledge was measured using a percentile scale. During the time of the shutdown, over 80% of students participated in some kind of online education. The majority of students were taking lessons on their android phones. There are several challenges that students have issues with sadness and anxiety, a lack of reliable internet, and an uncomfortable learning environment atmosphere in the house. Underprivileged and students from far-flung locations often tremendous difficulties in doing research at this time of epidemic. Specifically, the results of this strategies for fostering a conducive learning environment for at-risk children as a whole the state's education system needs immediate measures to make it more robust so that its students can succeed in the future. will make sure that young people get the tools they need to find jobs and be productive workers.

Ashish Saikia et.al (2021) Natural occurrences may be found all around the planet. Statistical techniques provide for an excellent comprehension of the spatial distribution of such events. The COVID-19 epidemic has also become well-known throughout the world as a result of its spread via several media platforms. This research makes an effort to use a distance-decay function to examine the geographic distribution of the COVID-19 illness in West Bengal, India. The research, conducted using multiple ring buffer in ArcGIS 10.8 and basic linear regression analysis, shows that the concentration of COVID-19 cases is highest in the Central Business District (CBD) and decreases as one proceeds out from the CBD towards the periphery.

Nanigopal Kapasia et.al (2021) The purpose of this study is to evaluate how the lockdown during COVID-19 affected undergraduate and graduate students attending institutions in West Bengal. From May 1st to the 8th, 2020, data were collected by online survey. Through WhatsApp and electronic mail, students were given access to a Google form questionnaire that asked them to rate several aspects of their course structure. In all, 232 students participated

in the poll in its entirety. Participants' levels of learning were evaluated using a straightforward percentage distribution. About 70% of students used some kind of online education throughout the lockout. The vast majority of students enrolled in an online course utilized an Android-powered mobile device. Many college students struggle with mental health issues like melancholy and anxiety, as well as practical obstacles like slow internet connections and unhelpful living situations that make it difficult to focus on schoolwork. Particularly difficult for students in underserved communities and those living in far-flung regions is the fact that they must contend with a global epidemic that presents significant obstacles to their education. Based on the findings, the authors of this research propose specific measures to improve the learning environment of at-risk youth. There is an urgent need for strategies to construct a robust education system in the state, one that would guarantee the cultivation of employable skills and the productivity of young minds.

RESEARCH AND METHODOLOGY

An online survey was used to collect data from 232 undergraduate and graduate students attending schools in West Bengal. From May 1st to the 8th, 2020, data were collected by online survey. Through WhatsApp and electronic mail, students were given access to a Google form questionnaire that asked them to rate several aspects of their course structure. Informed permission was given to all respondents before to their participation in the online survey. In all, 232 students participated in the poll in its entirety. To better comprehend the demographics of the sample, descriptive statistics were calculated. It was determined how the lockdown affected students' study habits, preferred learning environment, and attitudes toward school administration's policy choices using a simple percentage distribution. The Statistical Package for the Social Sciences () was used for all the analyses.

.**DATA ANALYSIS**

Data on the study participants are included in Table 1. Of the total student body of 232, over two-thirds were 21 or younger. All male and all female students were represented equally in this group. The 'generic' social category comprised more than a third of the student body (35.8%). Most of them were Hindu (84.1%), lived in the countryside (70.7%), and earned less than INR 20,000 per year as a family (65.1%). Seventy-three percent of the students came from a liberal arts background. Table 2 shows the transfer of West Bengali students throughout the state's several districts. Maldah district students made up 34.5% of the total, followed by those from Darjeeling (12.9%) and Dakshin Dinajpur (11.2%). Furthermore, Maldah as an institutional district has a 42.2% student population density, followed by Darjeeling (32.8%) and Nadia (8.6%). Two of North Bengal's most prominent districts, Maldah and Darjeeling, are also home to some of the region's best schools. These two areas attract a disproportionate share of the region's students due to the high concentration of higher education facilities there.

Knowledge and attitudes regarding COVID-19

Table 1 shows the knowledge and attitudes of students about this current public health emergency. Of 232 participants, 98 students

Characteristics	Frequency (n)	Percentage (%)
Age of students (median age)	21	
21 years and below	147	63.4
22 years and Above	85	36.6
Sex		
Female	116	50.0
Male	116	50.0
Social groups	83	35.8

General		
Other Backward Classes	63	27.2
Scheduled Caste	72	31.0
Scheduled Tribe	14	6.0
Religion		
Buddhist	6	2.6
Christian	4	1.7
Hindu	195	84.1
Muslim	25	10.8
Other	2	0.9
Residential area		
Rural	164	70.7
Urban	68	29.3
Monthly income of the family (Rs.)		
Below 20,000	151	65.1
20,000–40,000	53	22.8
Above 40,000	28	12.1
Presently studying		
B.A./B.Sc./B.Com.	141	60.8
M.A./M.Sc./M.Com.	91	39.2
Stream of Study		
Arts	170	73.3
Commerce	3	1.3
Science	59	25.4

TABLE 2 Movement of student for the stud

Home Districts	Students (%)	Institutional District	Students studying (%)
Alipurduar	5(2.2)	Alipurduar	1(0.4)
Cooch Behar	10(4.3)	Jalpaiguri	2(0.9)
Jalpaiguri	23(9.9)	Darjeeling	76(32.8)
Kalimpong	3(1.3)	Uttar Dinajpur	16(6.9)
Darjeeling	30(12.9)	Dakshin Dinajpur	7(3.0)
Uttar Dinajpur	25(10.8)	Malda	98(42.2)
Dakshin Dinajpur	26(11.2)	Murshidabad	1(0.4)
Malda	80(34.5)	Bhirbhum	3(1.3)
Purba Bardhaman	1(0.4)	Nadia	20(8.6)
Bankura	1(0.4)	Kolkata	7(3.0)
Nadia	21(9.1)	South 24 Pargana	1(0.4)
Howrah	2(0.9)		
Kolkata	3(1.3)		
South 24 Pargana	2(0.9)		

In 2020 January, 42.2% of the population learned about this illness. 58% of students report learning about COVID-19 via a social media source, suggesting that they are familiar with the disease and its numerous aspects. During the lockdown, the vast majority of pupils (81.5%) said they were at home. Some 26.5%, 51%, and 22.5% of the students who were not living in their own homes (living with relatives, in a leased house, in a dormitory, or as paid guests) reported having trouble affording enough food, housing, and healthcare, respectively.

Learning status and academic sphere during the lockdown

In order to determine the current state of education during the lockdown, participants were given a series of questions including their preferred learning method(s), the amount of time they spent on each method

Table 3 Knowledge and attitudes regarding COVID-19.

Knowledge and attitudes	Frequency (n)	Percentage (%)
Time when heard about COVID-19	98	42.2

January 2020		
February 2020	69	29.7
March 2020	65	28.1
Source of information about COVID-19		
Newspaper	28	12.1
Personal interaction	12	5.2
Social media	134	57.8
Television	58	25.0
Place residing during the lockdown		
At own home	189	81.5
Other places (i.e. relative home, mess, or rented house)	43	18.5
Difficulties facing during lockdown (who are not at home)		
Financial	13	26.5
Food	25	51.0
Health	11	22.5

Table 4 Learning status and academic sphere during the lockdown.

Variables	Frequency (n)	Percentage (%)
Mode of learning		
Both textbook and online	88	37.9
Online studying	73	31.5
Reading textbook with own effort	71	30.6
Syllabus covered (%)		
< 30	91	39.2
30–50	57	24.6
> 50	27	11.6
Just exam completed	32	13.8
Not yet completed exam	25	10.8

Following e-pathshala for study materials		
Yes	49	21.1
No	155	66.8
Don't know	28	12.1
Time spending for study during the lockdown		
Less than normal situation	126	54.3
More than a normal situation	39	16.8
Same like a normal situation	67	28.9
Separate reading room for study		
Yes	129	55.6
No	103	44.4

Budgeting, and a Dedicated Reading Space at Home (Table 4). While 71 (30.6%) students studied by themselves, reading textbooks at their own pace and without engaging in digital e-learning during the lockdown, 88 (37.1%) students did the same. Students' academic sessions tend to have a little different length due to the fact that they are enrolled at different institutions. The majority of pupils (79.4%) reported covering less than 50% of the material. Sixty-eight percent of pupils were not using the e-pathshala as their primary source of study guides. More over half of the students (54.30%) said they were devoting less time to studying than usual. Among a total of 232 kids, 103 (44.4%) did not have access to a dedicated reading space.

Information about online classes

Among the surveyed students who were attending online classes (n = 185), only 26 (14.1%) students were attending online classes daily, while 54% of them were attending online classes less than 3 days per week. Most of the respondents (85.8%) used android mobile for attending e-learning and another 14.2% of students used their laptops

Table 5Information about online classes.

Variables	Frequency (n)	Percentage (%)
Online classes attended per week		
Above 3 days per week	59	31.9
Below 3 days per week	100	54.0
Daily	26	14.1
Gadgets for attending online classes		
Android mobile	182	85.8
Laptop or Computer	30	14.2

Possess of Gadgets for online classes		
Own	171	73.7
Hired from neighbor	2	0.9
Hired from family members	12	5.3
Persons conducted online classes at lockdown		
Institution's teachers	155	64.9
Conversation with friends	37	15.5
Home tutors	32	13.4
Others (family members, relatives)	15	6.2
Attended online classes before the outbreak of COVID-19		
Yes	61	26.3
No	171	73.7

, laptop, or other electronic device used for educational or training reasons. Despite the fact that 73.7% of students utilised their android mobile for e-learning and 5.3% of students borrowed devices from family members to use in class, there is still room for improvement. Only a small fraction of students (0.9%) have rented local e-learning devices to expand their non-objective knowledge. Teachers' use of a variety of digital platforms to begin or continue digital teaching during this lock-down time due to COVID-19 is indicative of the continuity of the teaching-learning process despite the urgency of the issue. Both the University Grants Commission (UGC) and the Higher Education Department of West Bengal have issued directives to their respective universities and colleges mandating that they maintain their pedagogical focus on digital mediums. Teachers are encouraging their pupils to join online classrooms in this scenario. Thirteen percent and four hundred fifty-eight hundredths of pupils said their private tutors had been in touch with them using digital means of instruction. A further 15.5% of students are interested in participating in digital learning after having a talk with a peer about it. Also, before to the COVID-19 epidemic, the majority of students (73.7%, according to the survey) had not used any digital platforms for the research (Table 5).

Platforms for online classes, materials sharing, and evaluationStudents were discovered to be utilising a wide variety of online tools, such as Zoom, Team Link, YouTube Live, Skype, Google Meets/Hangouts, Google Classroom, WhatsApp, etc., to attend online classes, share course materials, and reflect on their own and others' progress (Table 6). Further analysis reveals that 34.2% of respondents utilised the Zoom app, followed by 33.4% who used Google classroom and 14.7% who used YouTube Live to participate in online courses or lectures. During this time of restricted access, students used a variety of resources to continue their studies. It has been noted that students, mostly owing to inadequate internet access, prefer to learn using shared study materials rather than attending online lectures. Nearly 40% of students polled said they utilised a WhatsApp group to acquire study materials from both professors and friends, while just 32% said they used Google Classroom. Students have become less likely to rely on online resources like institution or instructor websites and livestreams. WhatsApp groups, Google classrooms, Google forms, Microsoft Kaizala, and many more were utilised by educators for rapid-fire assessment of student progress in online courses. Respondents most often used the WhatsApp group (40.5%), followed by Google classroom (24.9%), to assess their own learning. Students' progress in school was also assessed (8.0%) using a Google form. In the interest of full disclosure,

Table 6 Platforms for online classes, materials sharing, and evaluation.

Various platforms	Frequency (n)	Percentage (%)
Platforms of online classes		
Mobile-conversation (for Audio materials)	20	7.4
Google classroom	91	33.4
Team Link	16	5.9
YouTube live	40	14.7
Zoom app	93	34.2
Skype	6	2.2
Google meet	3	1.1
You tube	3	1.1
Platforms of Materials sharing		
WhatsApp group	115	39.4
Google classroom	93	31.8
Zoom app	30	10.3
Institution/teachers website	11	3.7
YouTube live	13	4.5
Youtube video upload	30	10.3
Evaluation of online platforms		
WhatsApp group	91	40.5
Google classroom	56	24.9
Google form	18	8.0
Microsoft Kaizala	2	0.9
Not yet evaluated online platforms	58	25.7

that more than 25% of kids had not yet had their progress measured was an alarming statistic.

Eight hundred and ten (44.9%) of the students in the sample were in the 9th or 10th grade, 289 (15.7%) were in the 6th or 7th grade, 558 (30.3%) were in the 3rd to 5th grade, and 183 (9.9%) were in the first or second grade (Table 3 and Figure 3).

Investigators recorded visual acuity of 6/6 or better in 1554 patients (84.45%), 6/9 or better in 184 instances (10%), and 6/12 or better in 2 cases (5%).
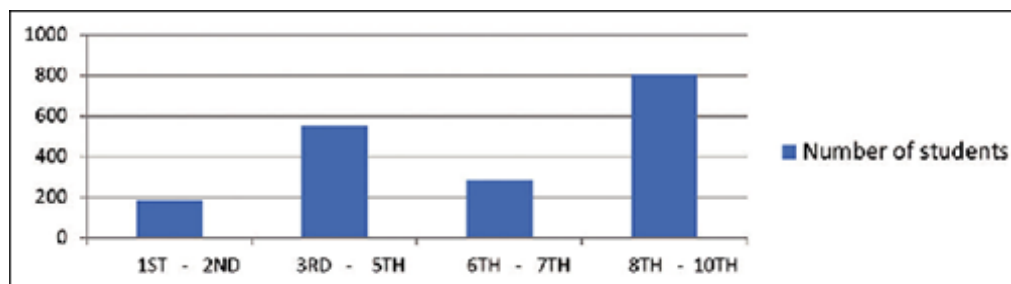
Figure 3: Distribution of students according to classes

CONCLUSION

Lockdown during COVID-19 has severely impacted school life. The current research examined the academic progress of college and graduate students during the epidemic. Strong inequities exist in the spatial distribution of COVID-19 cases in West Bengal. Without corrective lenses, a person who becomes blind at a young age owing to a refractive mistake would be visually impaired for a far longer period of time than an elderly person who loses sight due to cataract. In West Bengal, the number of reported cases of COVID-19 is very unevenly distributed among the state's various regions. It's obvious that Kolkata is where the sickness first appeared in West Bengal.

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