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Impact of Prolonged Isolation from the campus on the mental health of the students during Covid-19 pandemic

Md. Faruk Abdullah Al Sohan, Afroza Nahar, and Samia Yasmin

Abstract—There is a strong etiological connection between human psychology with the surroundings. A pandemic can create a huge negative impact on humans. This impact can be both physical and mental. With the outbreak of Covid-19 pandemic all the stimulus in life has been stopped. It left an adverse impact on the students, too. All kinds of educational institutions are closed, and classes are going online. This paper focuses on the psychological impact on the students as a result of being detached from campus oriented educational and other activities. A survey has been conducted on the students to find out their psychological impact during this situation where many students participated. It is revealed that prolonged isolation and segregation from normal campus activities has created mental trauma in the young minds of the students.

Index Terms—Covid-19, Mental health, Online classroom, Pandemic, Prolonged isolation.

I. INTRODUCTION

OVID-19, popularly known as corona virus, was first detected in Wuhan, China in December 2019 [1]. From China it spread all over the world and on 11th March 2020 World Health Organization (WHO) declared Covid-19 as a pandemic [2]. In Bangladesh, the first case of Covid-19 was identified on 8th March 2020 [3].

Humans are the major carrier of this virus and it is said that a corona-positive patient can transmit this virus to around 2.5 people [4]. This virus transmits when an affected person sneezes, coughs, or even speaks with another person. That is why, WHO recommends maintaining a social distance of, at least, 6 feet between two people [5]. Many countries, including Bangladesh, imposed lockdown and forced people

Md. Faruk Abdullah Al Sohan

Teaching Assistant, Department of Computer Science. American International University-Bangladesh (AIUB)

Afroza Nahar

Associate Professor, Department of Computer Science American International University-Bangladesh (AIUB)

Samia Yasmin

Teaching Assistant, Department of Computer Science. American International University-Bangladesh (AIUB) to stay at home to avoid mass social contact and impede the spreading of this virus. Under the lockdown or movement control order (MCO) by the government all kinds of educational institutions have been closed from March 17, 2020 [6]. The education ministry decides to resume all the classes online as in-campus classes can spread this virus very rapidly and worsen the situation. This pandemic has affected all the people of all sectors and walks of life; but, with time strictness on all other sectors has slowly been withdrawn to keep the mobility and dynamism of the economy. However, it is only the education sector that has been shut for a whole academic year. This stagnancy has created mental trauma in budding young minds of the students. This paper focuses on the current mental health conditions of the students of Bangladesh as a result of dormancy for a total academic year.

II. METHODOLOGY

We have done this survey among two levels of students: secondary and tertiary. Primary level is ignored on the ground that at this level thinking capability and socio-economic perspective of human mind remains quite immature. To cover secondary level, we have selected one high school and a private university has been selected to cover tertiary level students. Population size of the survey has been set around 400. Out the participant, 40% belongs to age group below 18 years, while 56% comprises the 19-30 years' age group and the remaining where above the age of 30. Most of the students who participated in the survey belonged from the urban areas, especially from the Dhaka city and a few from the rural areas. At first, a questionnaire in the Google Form has been created and distributed among the participants. There were questions related to their psychology and the impact of covid-19 in their regular life, see the Appendix. We examined the answers and plotted some bar charts to analyze the outcomes of the.

III. RESULT AND DISCUSSION

The findings of the survey will be discussed in detail in this section. However, we start with a summary of survey result as presented in Table 1.

TABLE I
IMPACT OF COVID-19 PANDEMIC BY AGE GROUP

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	Age Group	Mental Health Condition	Leisure Time Activities
	Below	Boredom	Watching TV and YouTube, Social
	18		Media Browsing, Spending More
			Time on Mobile
	19-30	Stressed and	Watching TV, Doing Nothing,
		Depressed	Sleeping Most of the Time, Internet
			Browsing
	Above	Stressed	Watching TV, Doing Family Chores
	31		and Office Work. Gaming

- Below Age 18: When a student is below 18, he is considered as a teenager. A teenager mostly spends his time in the outdoor activities, such as, spending time with friends in school, play outdoor games after the school and so on. But due to this pandemic, he must spend time within home. Additionally, we know that, usage of mobile under the age of 18 is prohibited. But because of the coronavirus, as a student, he has nothing to do but only watch TV or spending time on the social media by using mobile. This habit does not only hamper his creative mind but also making him bored.
- Age 19-30: Age 19-30 is the time, when a person feels too much insecurity about his life and career. This is the most depressing period for a person as in this period he must choose his life goals and destinations very carefully. But due to the pandemic, 13 out of 100 students are not able to able to complete their graduation within their expected time, 40 among 100 students lost their job, internships and so one. Moreover, 29 out of 100 students will earn less than they deserve at the age of 35 [7]. All these things are making a person stressed and depressed and this is also reflecting in our survey. This stress and depression lead a person to be inactive all day long or pass time only by sleeping.
- **Above 31:** Above 31 age is the time when a person starts his own family. In this stage of life, he must involve in the household works and need to be active in the office. But during this pandemic, he must do online job. Due to this online work pressure, he cannot spend time with his family even after staying in the house for so many days. Sometimes, he has to do balance both the office work and household work in the same time. This creates stress in a person who is above 31 years old.

A. Mental Health Issues of Students from Different Study Background

In this section, mental health of different aged students from different education field is discussed. An organization called Mental Health Foundation of UK surveyed and found that, people are facing more mental health related issues in recent times than they used to face in past decades. For example, in 2000, 23.1% people came to solve their mental health issues whereas in 2014, there were around 37.3% people [8]. An article published from New York said that, this pandemic is a national agony and it is making more people depressive [9].

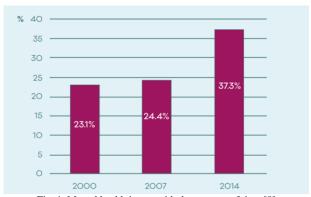


Fig. 1. Mental health issues with the passage of time [8]

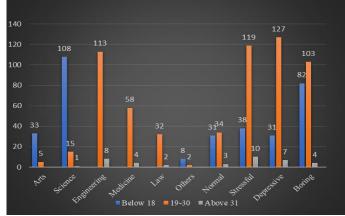


Fig. 2. Mental health issues of students from different study background

From Fig. 2, it is easily understood that most of the students are between 19-30 years old participated in this survey and most of them are engineering students and second majority category students are from medicine. The purpose of surveying their educational background is that, all education sectors do not have same kinds of pressure. Many educational sectors are not preferring online classes as well. Now, let's focus on the second part of the graph. Here, most of the students are complaining that either they lead a stressful life or depressed with their lives. Students from engineering and medical faculty are leading quite disturbed lives than others and they are facing some mental health issues, too.

B. Mental Health Issues of Students from Different Study Background (based on the time needed to spend on internet for study purpose)

A paper related to students' mental health during online classes was retrieved in 2021. Teachers can observe a student while the classes are not online. In classroom, teachers can interact directly with the students and it becomes easy to detect whether a student is facing any mental issues. In that paper, it was also said that, if a person has any mental issues then almost in 75% of the cases the symptoms can be seen before 24 [10]. That means, due to their tender age students are more vulnerable to mental issues. Moreover, we know, if a problem can be identified in an early stage, the probability of solving this problem is more. However, it is not possible to identify a student's mental issue through online classes.

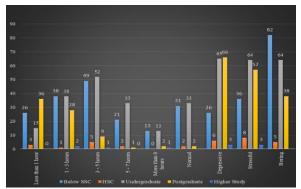


Fig. 3. Mental health issues of students from different study background (based on the time needed to spend on internet for study purpose)

At first, it was first analyzed how much time a student spends on the internet for study purposes. Fig. 3 indicates that most of the students spend 3-5 hours online for their education and most of them are either depressed or leading a stressful life. On the other hand, the students who are below SSC are living a boring life as they are deprived of activities like outdoor games.

C. Seriousness of the Coronavirus among Different Age of People

Awareness and level of practice regarding standard operating procedure (SOP) during a pandemic is big factor in spreading covid-19 virus.

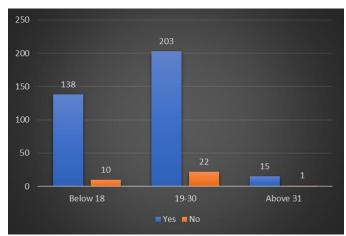


Fig. 4. Seriousness regarding coronavirus by different age group

We surveyed that how many people are aware of this pandemic. Surprisingly, around 9% said that they are not actually aware of the seriousness of the pandemic situation. This is a quite big number as this virus can be infect around 3 people from only one person. If these 3 people can infect more three peoples then after ten cycle, from that one person around 59,000 people can be infected [11]. So, these people are not aware about the seriousness of this issue and start to roam around carelessly then they can infect almost 1,888,000 people within a short time.

D. Comparison of Affected Areas (Urban vs Rural)

We know that cities are more crowded than the rural areas. The more people come in the contact of other people the chances of spreading the coronavirus is higher. Moreover, the immunity system of the rural people is higher than the city people. For these reasons, the number of corona positive patients are higher in the urban areas than the rural areas. From Fig. 5, it is clear that most of the affected people were from city areas.

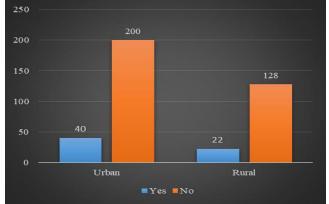


Fig. 5. Comparison of affected areas (urban vs rural)

E. Concentration on Study based on the Time Spend on Internet for Study Purpose

Online class system is quite a new phenomenon in Bangladesh. This system has got some positive sides, e.g., in the traditional method, a student must travel a lot and spend a good amount of time in the roads for attending schools, colleges or universities. But in online classes these times are not wasted, and a student can utilize this time in developing his skills. We took the survey to identify what amount of time a student is giving on the education in the name of online classes and analyzed whether they can give their concentrations on their studies.

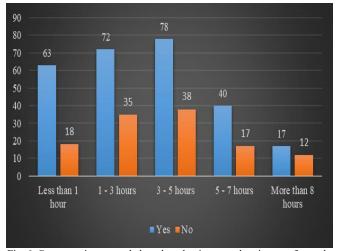


Fig. 6. Concentration on study based on the time spend on internet for study purpose

We found positive result in this survey. We found that most of the students are spending 3-5 hours on internet for their online classes and most of them can give concentrations. Moreover, it is seen that, it does not matter how many hours a student is spending on internet for education but most of the students indicated that they are satisfied with this process and they are giving concentration.

F. Precautions Before Being Affected by Coronavirus

Precautions and preparedness are the main weapons to defeat coronavirus. It is always said that, if you are careful enough and taking proper precautions then there are high chances of being saved in this pandemic.

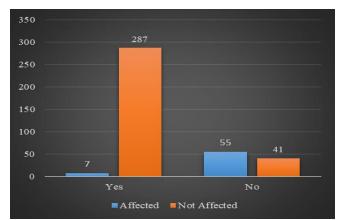


Fig. 7. Precautions before being affected by coronavirus

From Fig. 7, it is evident that those who took proper precautions, were not affected by this virus. There were 74% who said that they took proper precautions and among them, 72% were not affected. The remaining 2% people were affected by their near ones as they were not careful enough.

G. Mental Health Issues based on the Time Spend on the Internet for Entertainment Purpose

An article published their research that was reviewed by a psychotherapist where it said that social media can cause depression [12]. The more a person involved himself in the technologies and stop going outside of the room, the more chances of his being alone and depressed.

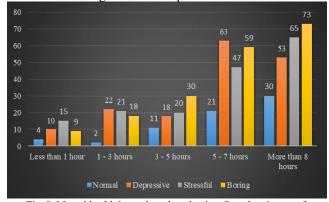


Fig. 8. Mental health issues based on the time Spend on internet for entertainment

We also found the same result in our survey. We have found that the more a person involves himself in the technologies, the more he is being depressed, stressed, or feeling bored.

H. Concentration on Study of the Corona Positive Patients

British Broadcasting Corporation (BBC) published an article where it was told that among many side effects, coronavirus can affect the brain of the patient. For example, a person cannot stay focused like before for a long time or may have some memory problem [13]. However, from our research, we have found the same consequences.

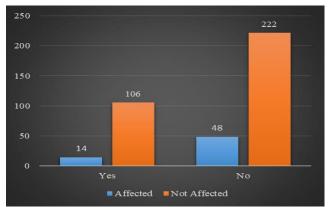


Fig 9. Concentration on study of the corona positive patients

There were 16% affected by the coronavirus and among them, 78% said that they cannot concentrate on the studies like before. Moreover, there were 84% who were not affected but still, most of them are unable to concentrate on studies like before. A pandemic can cause a serious level of mental health problem. Being isolated, quarantined from society and the near ones, economic issues are causing mental breakdowns [14].

IV. CONCLUSION

We have surveyed to analyze the mental effect of the coronavirus on people, especially on the students' psychology. We have found that most of the students are depressed and living a stressful life. Besides, online classes and being confined to the internet and technologies make a student more depressed. Prolonged detachment from the in-campus activities is creating mental disturbances among the students. Moreover, many of the students are infected by the virus, and some students lose their relatives. These are other reasons for living a mentally disturbed life. To combat this situation and ensure the mental health of the young generation, immediate action plan should be devised by the ministry of education to bring back normal campus-based education while maintaining the highest precautions and care to hinder contagion. For this purpose, a national advisory committee can be formed comprising of educationist, clinical psychologists and public health experts to find effective ways to open the educational institutes. Experience from the countries who already opened the campuses can also be gathered to analyze every risk factor. Nevertheless, sincere efforts to open the educational institution by strictly following health etiquettes has become urgent and imperative. Lastly, we would like to add that, we could use some Stress Level detection process to strengthen our result. There are some Stress Level detection processes available, among them, electrocardiogram (ECG) is the one. These processes capture the hearts activity that can provide the stress level of the person. But these processes are too much costly and during this pandemic and lockdown, it is impossible to collect people and use any of the stress level detection process upon them.

APPENDIX How much of your time on the Internet is spent on education? The survey questionnaires are given below: Less than 1 hours Your Age 1 - 3 hours O Below 18 3 - 5 hours 19-30 Above 31 5 - 7 hours More than 8 hours Gender * O Male Have you been affected? * Female () Yes O Prefer not to say O No How long have you suffered? * Your education level * O Less than 1 week ○ Below SSC Less than 2 weeks ○ HSC Less than 1 month Undergraduate Still suffering Opostgraduate Which treatment do you prefer while you were affrected? * Higher Study Doctor What is your field of study? * O Arts Home Science Hospital Engineering Medicine Can you give proper concentration on your study like before? * O Yes Others O No Where were you during the pandemic? * O Urban Did you take proper safety precausions? * Rural O Yes How much time per day do you spend on the Internet? * O No Less than 1 hour Do you know about the serious result of the disease? * 1 - 3 hours O Yes 3 - 5 hours 5 - 7 hours More than 8 hours Have you lost any of your relative by this virus? * O Yes O No

How did you feel during this pandemic? *		
Normal		
Stressful		
Depressive		
Boring		
How did you spend your leisure time? *		
Short answer text		

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Md. Faruk Abdullah Al Sohan was born on September 15, 1998 in Gaibandha, Bangladesh. He received his B.Sc. degree in Computer Science and Engineering from American International University-Bangladesh (AIUB), in 2020 and currently pursuing the MScs degree in Computer Network

and Architecture at American International University-Bangladesh (AIUB). From spring 2019-2020 to summer 2019-2020, he was a Teaching Assistant at American International University-Bangladesh (AIUB). One of his research works has been published in an IEEE conference, "2nd International Conference on Robotics, Electrical and Signal Processing Techniques 2021 (ICREST 2021)". His research interest includes, and passion are mostly based on Network Security, Neural Network, Image Processing, Internet of Things (IoT), Block Chain Technology, Data Analysis, Artificial Intelligence, Machine Learning and Database Design.



Dr. Afroza Nahar received her PhD degree from University of Malaya, Malaysia. Prior to that she earned a M. Sc in Computer Science from Asian Institute of Technology, Thailand and another in Applied Mathematics from University of Dhaka, Bangladesh. Currently, she is working as an Associate Professor in the

Department of Computer Science at American International University-Bangladesh (AIUB). Dr. Nahar published a number of research works in ISI-indexed high impact factor journals and presented many papers in prestigious international conferences. Most of her contributions in Computational modeling of PV/T system Research field were published in ISI Q1 journals. Her major research interests include Computational Modeling, Renewable Energy System, Distributed Computing, Wireless Sensor Network etc.



Samia Yasmin was born in Dhaka City, Bangladesh in 1998. She received her M.S. degree in computer science and engineering from American International University Bangladesh (AIUB). From Spring 2019-20, she was a Teaching Assistant at American International University-Bangladesh (AIUB). One of

her research works has been published in an IEEE conference, "2nd International Conference on Robotics, Electrical and Signal Processing Techniques 2021 (ICREST 2021)". Her research interests include Blockchain Technology, Internet of Things (IoT) and Network Security.