

The Rural Students Amid COVID-19 Pandemic: Our Initiatives

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Background

The emergence of new deadly virus: COVID-19 has negatively impacted physical, psychological, economical and academic status of students of Bangladesh. Rural students are adversely affected for lack of proper information on the consequence of the spread of virus. Moreover, poverty and negligence at this critical time has caused the vulnerable to suffer more. Therefore, we took the initiatives to spread essential information related to COVID-19, raising awareness through medical camps and the basic aid programs. Recently, we arranged two programs at Boalkhali Upazila of Chattogram District to help rural students with newly designed health care items on the context of COVID-19. Here is the short description of the program.



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Picture-1 & 2. The program *Stay Safe in COVID-19* at Kadhurkhil Milon Mondir and Allahma Achiur Rahman Academy, Boalkhali, Chattogram (Date: 27.08.2020 & 09.10.2020)

History of COVID-19

Amabie, a mermaid-like creature emerged from sea forecast the Japanese about the good harvest for next six years and spread of diseases all over the world. The unknown named-officer scratched the Amabie according to its instruction and spread it among the people. Till 1846 it was in the Japanese culture. Amabie is a symbol of pandemic disease occurring in a rich cultural history. The first tweet of mermaid Amabie relation to COVID-19 pandemic came in public view on 30 January 2020 (Furukawa Y, Kansaku R et al., 2020).



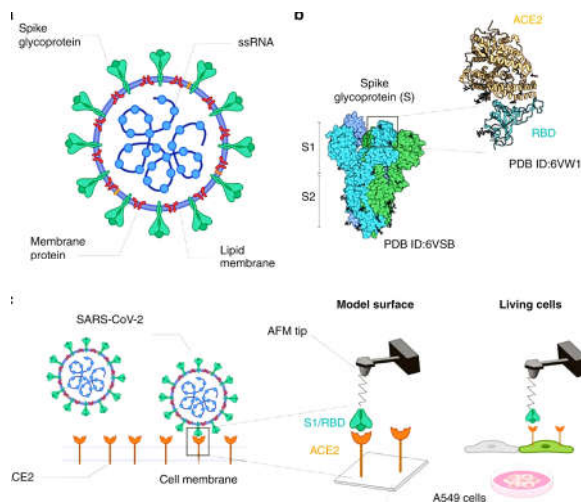
Picture-3. The Symbol of COVID-19

After that, massive tweets spread all over the country. Subsequently, the Japanese government introduced physical distancing, quarantine and staying home as a measure for prevention of spread of the disease. The causing agent is called the corona virus, SARS-Cov-2.

The source and origin of the virus is unknown. However bats and Pangolins are the suggested natural hosts. It was first reported from Wuhan, China, 31 December 2019 and on 20 January 2020 WHO and Chinese authority described first human–human transmission of the disease. In a short period it becomes pandemic and now 188 countries are affected.

Introduction

COVID-19 is a viral disease caused by new strain of corona virus, SARS-Cov-2. Here CO stands for corona, VI for virus and D stand for disease. Formerly the virus was called novel corona virus 2019. COVID-19 is an exceptionally infectious disease and spread by respiratory droplets and probably faecal-oral and aerosol contact. The illness ranges from a simple cold to Middle East Severe Respiratory Syndrome and Severe Acute Respiratory Syndrome. The spike glycoprotein binds with Angiotensin-Converting Enzyme-2 (ACE-2) to increase in number. It is more abundant in the respiratory tract and that's why the lungs are affected most. About 80% attack is mild restricted to the upper respiratory tract and patients get complete cure. However, in 20% cases it becomes severe and about 2% of them become fatal (Mason RJ, 2020).



Picture-4. The structure of SARS Cov-2 virus causing COVID-19



Picture-5. The Electron-microscopic view of SARS COVID-2 virus

It affected 74.2 millions of people all over the world and 1.66 millions already died due to it. However, there is no authentic data regarding the children and school students. Till today there is no specific treatment for COVID-19, but the supportive treatment and preventive measures are of great value. The common symptoms are fever, cough, headache and respiratory difficulty. However, it is evident that it deadly mostly the aged persons and some young persons having multiple diseases and low immunity. In severe cases, there is pneumonia and respiratory failure and sometimes brain death due to cerebral vessels blood clot. The potential risk of child attack by COVID-19 is tiny. In the UK only ten deaths are students below 19 (Soland J, Kuhfeld M et al., 27

May 2020). However, the schools all over the world are closed for an extended period, and the students are staying at home.

How do the rural students do?

Although the students are less attacked with or attacked mildly with a presentation of low fever, cough and body ache, it abates with taking rest, antipyretics (paracetamol), fruit juice and nutritious foods. But the lifestyle of the students has changed. Anxiety, loss of lessons in the school, poor physical activity, loss of lives of parents and relatives, beloved teachers and keeping away from friends, long staying home, deprived of getting sun birth and breath in the fresh air and adequate health care- all these reasons are causing a negative impact on their body and mind. (BBC NEWS. Coronavirus: Does reopening schools risk spreading coronavirus? 1 September 2020. (<https://www.bbc.com/news/health-52003804>)). Therefore, unlike the grown-up people and students in town, the sufferings of the rural students bind no bound particularly where the Internet facility is limited or absent.

There are approximately 21 million students from grade 1 to 12 in Bangladesh, and majority of them are from the rural area. Recently online education has started to cover the wide gap in school schedule. The urban students can avail the opportunity in most places. But, the option for rural students are limited for poverty, interrupted power supply, lack of Internet facility and IT equipment (UCA news. COVID-19 disrupts education in Bangladesh(<https://www.ucanews.com/news/covid-19-disrupts-education-in-rural-bangladesh/87976#>)). Therefore, the frustration is resulting into dépression among the school students adding up to family trouble and economic hardship. Under the circumstances, we performed some comprehensive program to encourage the students for school education, self-protection, health and hand hygiene, food hygiene and healthy diet on the context of rural life.

Our work for rural students in COVID-19

The rural schools were shut down for a long time and the students were skipping their lessons, teachers and friends, games, sports and cultural arena. Many of them do not realize the actual reasons and consequences. In recent time, government has started distance learning and online teaching for most of the schools with an effort to keep the students in touch with the school environment, teachers, and lesson and also maintain communication between them. Many students don't have Internet and laptop at home. So for them, an online class is just frustrating news and learning through television is not interactive. (Coronavirus disease 2019, How to protect students and staffs in Schools and nurseries. <https://applications.emro.who.int/docs/EMCSR267E.pdf?ua=1&ua=1>).

As a result, they are not only academically lying behind but also feeling inferior psychologically. Moreover, uncertainty, anxiousness and fear, economic hardship of the family- all of these are adding to their melancholy and making them joyless members of a dark world. To keep them free from the situation, we took some practical steps to facilitate a new dream, wait for a joyful return again.

Accordingly, we performed a few programs with rural students and volunteers of a religious temple and academic institution to tell them about the new disease COVID-19, how to stay safe from the disease and finally learn to live in the critical situation. Total 100 school students, age: (11years-17 yrs.) attended programs with female predominance.

Stay Safe In Covid-19

During the event, Dr. Ashish Kumar Chowdhury demonstrated the basic principles to *Stay Safe in COVID-19*. He put emphasis on frequent hand-washing with soap for at least 60 seconds, wearing proper facemask and keep a six feet distance with others outside the house.



Picture-6. COVID-19 awareness speech delivered by Dr. Ashish K. Chowdhury

The primary things we taught them:

- Frequent hand-wash with soap and water taking minimum 60 seconds according to the demonstrated manner (WHO, 2020).
- To wear proper facemask correctly at going out of the house and coming near to outside people in the place.
- To keep a safe distance six feet from other people or suspected man of having a fever and cold.
- To avoid hug and handshake with others.
- Not to touch the mouth, face, nose and eyes with out washing the hand.
- To use tissue during coughing, sneezing and dispose it in proper bucket.
- To take plenty of water, fresh fruits, fish, meat and vegetables to raise the immunity.
- To clean all utensils like books, notebook, reading table, pen pencil, and geometry box, doorknobs, electric switches with proper sensitizer containing 70% Isopropyl alcohol.
- For any relevant symptom of COVID to contact us for proper treatment.

We also taught them about teaching the lifestyle of their family members and relatives and try to communicate with school-friends informing them preventive measures for COVID-19. We have no scope to describe the details of the program here. However, our arrangement was small, but we maintained vital instruction of WHO and UNICEF and the Ministry of Health and Family Welfare of Bangladesh in all the programs. Accordingly, we arranged two programs and observed excellent interactive participation of the students.



Picture-7. It demonstrates the sitting arrangement of the student maintaining proper distance.

We prohibited mass gathering and invited teachers and local government administration in the program. *Social distancing and avoiding of mass gathering were the basic requirement in doing a training session in COVID-19* (Picture-7)

Here we cite the examples of some demonstrations to the students

Demonstration -1

Dr. Satyam Sarker is demonstrating the proper method of recording body temperature (Picture-8). He says, 'take a dry, clean clinical thermometer. See the level of the Mercury column; keep its lowest level by gently jerking it downward. Now put it on the armpit for 2-3 minutes. Reread the rise of the mercury column. We call it fever when it rises above 98.4° F. *He says fever; dry cough and tiredness are the common initial symptoms of COVID-19 that cured within 4-5 days.* However, for a more protracted fever and respiratory difficulty attend a doctor immediately.



Picture-8.



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(10)

Picture-9 and 10 Demonstration on wearing facemask and hand washing

Conclusion

In both the camps, the teachers, students and guardians and local government gave us full cooperation. The students were very happy to meet and talk with their friends, warming sun, and breath the fresh air, learn life-saving information about COVID-19 and preventive measures to stay safe in COVID-19 pandemic. They were also happy to know that the scientists had invented a vaccine for which they were hopeful get it soon. However, FDA approved Pfizer's COVID-19 vaccine for children above 16 years and Moderna's vaccine above 18 years. Vaccination of the children below 16 years is now under trial (The Conversation, <https://theconversation.com/>, Online article, Updated with FDA, 18. 12.2020).

They were satisfied to understand how to cope and continue the lessons in the critical situation using remote media, TV and guidance from schoolteachers. They were grateful to us to get free facemask, sanitizer, soap and healthy foods. We think this type of health awareness program regarding COVID-19 for the rural student is unique in Bangladesh. The students, teachers and the guardians and social elites felt encouraged as well. So far, we know there is no report of COVID-19 among the trainee students till today while writing the manuscript and none of them had COVID test.

Suggestions

- *We request the local government to provide essential treatment facility of the rural students in this critical period.*
- *We suggest the concerned authority of Bangladesh to reopen institutions for the students above 18.*
- *We also propose the concern department to vaccinate students on priority basis free of charge as early as possible as it will be available.*

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