A Study on the Impact of Covid-19 on Students Learning Experiences with Special Reference to Madurai City

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Abstract
Corona viruses are a large family of viruses, causing less severe common cold to more severe diseases such as severe acute respiratory syndrome (SARS) and the Middle East respiratory syndrome (MERS). The SARS-CoV-2 is a corona virus very similar to the one that caused SARS. There is evidence that the SARS-CoV-2 has also been transmitted from bats. Like other corona viruses, SARS-CoV-2 virus particles are spherical and have mushroom-shaped proteins called spikes protruding from their surface, giving the particles a crown-like appearance. The spike binds and fuses to human cells, allowing the virus to gain entry. Researchers at the University of Texas at Austin and the National Institutes of Health, U.S., have produced a 3D atomic-scale map of the protein of the SARS-CoV-2 that binds to and infects human cells. Mapping the 3D structure of the protein - spike (S) glycoprotein - will allow a better understanding of how the virus binds to the human cells. Knowing the structure of the spike protein will, in turn, allow scientists to develop vaccines and antivirals against the virus and even better diagnostics. The World Health Organisation has declared COVID-19 to be a pandemic. The symptoms of COVID-19 appear within two to 14 days after exposure and include fever, cough, a runny nose and difficulty in breathing. This paper provides a comprehensive review of the COVID-19 and how this great pandemic has bothered the ordinary life of every citizen, with more focus on the economic imbalance created in India. This study has also attempted to know the students learning experiences and their attitude due to this lockdown period amidst the demanding end of the semester requirements in the year 2020. It also attempts to know their expectations, anxieties, plans and problems encountered by them about COVID-19 by being at home, having in mind their career development.

Keywords: Asymptomatic, COVID-19, Case fatality rate (CFR), Community transmission / spread, Cordon sanitaire, Contact tracing

Introduction
Corona virus disease (COVID-19) is an infectious disease caused by a newly discovered corona virus. Most people infected with the COVID-19 virus will experience mild to moderate respiratory illness and recover without requiring special treatment. Older people and those with underlying medical problems like cardiovascular disease, diabetes, chronic respiratory disease, and cancer are more likely to develop serious illness. The best way to prevent and slow down transmission is to be well informed about the COVID-19 virus, the disease it causes and how it spreads. The COVID-19 virus spreads primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes. At this time, there are no specific vaccines or treatments for COVID-19. However, there are many ongoing clinical trials evaluating potential treatments. World Health Organisation (WHO) will continue to provide updated information as soon as clinical findings become available. The virus can be detected using a PCR test.
Statement of the Problem

Crisis tend to bring out both the best and the worst in people. On the one hand, the COVID-19 pandemic has people picking up groceries for their elderly neighbors, sewing masks, and sending hand sanitizer to those in need. Simultaneously, others are hoarding toilet paper, spreading conspiracy theories on social media, and failing to follow health directives from authorities. Hardly anyone is going through the normal routine of getting ready for work, commuting to the office, spending the day with colleagues, returning home, and enjoying the evening with family and friends. As the current scenario is such that the researcher(s) being in the field of education are interested to know about the student’s mentality about this Covid-19. This fact kindled the interest in the researchers to undertake the present study.

Objectives
1. To learn the facts about the current pandemic Covid-19.
2. To know the student’s opinion towards Covid-19 and online learning.
3. To analyze the students’ attitude towards a future career, problems faced and measures/remedies available due to this pandemic.

Methodology
The present study comprises both primary and secondary data collected from the students, including schools and colleges in and around Madurai city.

Primary Data: The primary data were collected from various respondents, including schools and colleges situated in Madurai city.

Secondary Data: The secondary data were also collected from various standard text books, magazines, journals, newspapers and the internet, which constituted supportive literature to make analysis and suggestions.

Period of the Study: The study was undertaken in the year 2020 during the Covid-19 Lockdown during March, April & May 2020.

Sampling Design: A convenience sampling technique was used.

Sample Size: A sample size of 275 respondents was selected for this study.

Statistical Analysis: Simple techniques such as percentage, mean, Garret Ranking and Likert scaling of the scores regarding the student’s opinion towards Covid-19 and their attitude regarding future career, problems faced and measures/remedies available due to this pandemic is being analyzed by the use of appropriate statistical techniques.

Analysis and Interpretation

Table 1: Demographic Profile of Respondents

| Gender   | Percentage |
|----------|------------|
| Male     | 13.1       |
| Female   | 86.9       |
| Total    | 100        |

Interpretation: 13.1% of the respondents are male and 86.9% of the respondents are female.

| Residential status | Percentage |
|--------------------|------------|
| Urban              | 72         |
| Semi-urban         | 12         |
| Rural              | 16         |
| Total              | 100        |

Interpretation: 72% of the respondents are residing in urban area, respondents residing in semi-urban area is 12% and 16% of the respondents are residing in rural area.

| Educational Qualification | Percentage |
|---------------------------|------------|
| SSLC                      | 4.7        |
| HSC                       | 17.8       |
| Diploma                   | 0.4        |
| UG                        | 67.3       |
| PG                        | 9.8        |
| Total                     | 100        |

Interpretation: 4.7% of the respondents are studying class 10, 17.8% of the respondents are class 12 students, 4% of the respondents are Diploma holders, 67.3% of the respondents are Under graduates and 9.8 of the respondents are Post graduates.

Source: Primary Data
Table 2: Opinion Towards Covid-19 and Online Learning

| Study           | Percentage |
|-----------------|------------|
| Yes             | 92.7       |
| No              | 7.3        |
| **Total**       | **100**    |

**Interpretation:** 92.7% of the respondents are studying in home country and 7.3% of the respondents are studying in abroad.

| Awareness of Virus Outbreak | Percentage |
|-----------------------------|------------|
| Yes                         | 97.5       |
| No                          | 2.5        |
| **Total**                   | **100**    |

**Interpretation:** 97.5% of the respondents are aware of this virus outbreak.

| Update covid-19 | Percentage |
|-----------------|------------|
| Yes             | 93.1       |
| No              | 6.9        |
| **Total**       | **100**    |

**Interpretation:** 93.1% of the respondents update their self of this virus outbreak on daily basis.

| Financial Crisis | Percentage |
|------------------|------------|
| Yes              | 61.8       |
| No               | 38.2       |
| **Total**        | **100**    |

**Interpretation:** 61.8% of the respondents are facing financial crisis due to covid-19.

| If yes (extend) | Percentage |
|-----------------|------------|
| Bad             | 2.5        |
| Worst           | 2.9        |
| Tough           | 9.8        |
| Manageable      | 38.5       |
| No idea         | 8          |
| **Total**       | **61.7**   |

**Interpretation:** Among 170 (61.8%) respondents, 2.5% of the respondents felt bad, 2.9% respondents felt worst, 9.8% respondents felt tough, 38.5% of the respondents thinks that the financial crisis is manageable and 8% of the respondents have no idea.

| Pandemic get over by | Percentage |
|----------------------|------------|
| 2020                 | 42.9       |
| 2021                 | 13.1       |
| No idea              | 44         |
| **Total**            | **100**    |

| Interpretation: 42.9% of the respondents thinks this virus outbreak will get over by 2020, 13.1% respondents said that it will get over by 2021 and 44% have no idea. |

| Preferred Teaching Programmes | Percentage |
|-------------------------------|------------|
| On campus                     | 39.6       |
| Online                        | 14.5       |
| Both                          | 45.5       |
| **Total**                     | **100**    |

**Interpretation:** 39.6% respondents prefer on campus teaching, online mode of teaching is preferred by 14.5% respondents and 45.5% respondents prefer both.

| Change in study plan | Percentage |
|----------------------|------------|
| Yes                  | 25.5       |
| No                   | 74.5       |
| **Total**            | **100**    |

**Interpretation:** 25.5% of the respondents changed their study plan and 74.5% of the respondents have not changed their study plan so far.

| Moved lectures online | Percentage |
|-----------------------|------------|
| Yes                   | 89.1       |
| No                    | 10.9       |
| **Total**             | **100**    |

**Interpretation:** Institutions had moved their lectures online for 89.1% of the respondents.

| Online learning material | Percentage |
|--------------------------|------------|
| Video conferencing & e-material | 30.2 |
| e-material & audio lectures | 57.1 |
| Audio lectures & video conferencing | 12.7 |
| **Total**                | **100**    |

**Interpretation:** 30.2% respondents receive their material through video conferencing & e-material, material provided in the form of e-material & audio-lectures for 57.1% of the respondents and audio lectures & video conferencing is provided to 12.7% respondents.

| Sources used for online lectures | Percentage |
|---------------------------------|------------|
| Moodle                          | 1.5        |
| Edx                             | .73        |
| Google Classroom                | 85.8       |
| Swayam                          | 1.09       |
| AdhaGuru                        | .70        |
| Others                          | 10.18      |
| **Total**                       | **100**    |
Interpretation: The data implies that when compared to other sources Google Classrooms are widely used world over and other sources such as Zoom, Moodle, WhatsApp, SWAYAM, Webex, Meet, edX, AdhaGuru, Imartus, Udemy and Chinese app are also used to some extent for online learning.

Source: Primary Data

Table 3: Mindsets During Covid-19 Lockdown

| Traits      | Mean Score | Rank |
|-------------|------------|------|
| Fear        | 2.72 (748) | IX   |
| Anxiety     | 2.75 (756) | VIII |
| Stress      | 2.79 (766) | VII  |
| Boring      | 3.08 (846) | I    |

Source: Primary Data

Table 4: Spending of Time during Lock Down Period

| Spending of Time During Lock Down Period | Garret score | Mean score | Rank |
|-----------------------------------------|--------------|------------|------|
| Reading books                           | 5            | 49.19      | VI   |
| Watching online entertainment           | 15           | 54.87      | I    |
| Learning online course                  | 25           | 52.71      | III  |
| Time with family                        | 35           | 53.61      | II   |
| Looking after the hobby                 | 45           | 50.3       | IV   |
| Preparing favourite dishes              | 55           | 46.7       | VII  |
| Shooting tiktok videos                  | 65           | 43.06      | IX   |
| Involved in social activity             | 75           | 39.99      | X    |
| College academic reports                | 85           | 50.7       | V    |
| Future career admissions                | 95           | 43.37      | VIII |

Source: Primary Data (Computed)

With the help of Garrett ranking, it is found that watching online entertainment site is the choice of students during lock down period followed by Time with family and Learning online course is the third way of spending lock down period.

The scores of the twenty-five attributes are taken for factor analysis results in four important factors affecting the students’ attitude. The four factors, the number of attributes in each factor, its reliability coefficient, Eigen value and the percent of variance are given in the below table.

Table 5: Factors Affecting the Attitude of Students Rotated Factor Matrix

| S. No. | Factors affecting the Attitude of Students | Number of Attributes | Eigen Value | Percent of Variance | Cumulative Percent of Variance |
|--------|-------------------------------------------|----------------------|-------------|---------------------|--------------------------------|
| 1      | Future career planning                     | 11                   | 5.956       | 19.21               | 19.21                          |
| 2      | Problems faced                             | 8 (-1)               | 3.047       | 9.82                | 29.03                          |
| 3      | Measures/ Remedies                         | 6 (-1)               | 2.011       | 6.48                | 35.52                          |
| 4      | Expectations                               | 6 (-1)               | 1.829       | 5.90                | 41.42                          |

Source: Computed data

The four factors were shown to explain the factors affecting the attitude of students to the extent of 41.42%. The factors derived after the exploratory factor analysis are Future career planning, Problems faced, Measures/ Remedies and Expectations.
Suggestions

• Students in the end semester need to plan their higher education keeping the prevailing situation in the world. Parents and teachers should keep motivating them to come out of stress because of this virus outbreak.

• Various online courses are made available to all cadres of learners. This is the perfect time for the students to enhance knowledge through online learning platforms facilitated by universities/ institutions in our country and abroad. Academicians should encourage students to participate and learn in the online learning platforms for academic progression.

• This being an extraordinary pandemic situation, it is, of course a very good opportunity for the student community to adapt themselves to any kind of good and bad situations.

• Even after this pandemic gets over, it will be advisable to continue with online teaching methods as it makes the students face international challenges.

• The student community can be encouraged to undertake studies at a smaller level to understand the impact of COVID-19 on the economy. They need to survive with the skills of analyzing the situation to take corrective decisions.

Conclusion

This may be the time to reset as the destruction of the Indian and world economy is vital. It takes more than a year or two to bring back the economic enhancement in India and the responsibility to protect the vulnerable humanity from this deadly COVID-19. Indian Government, along with its citizens, have a heavy responsibility on its shoulder to revive this economy back with physical, emotional and mental ability to achieve the status of a developed nation.

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