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A study to assess the awareness regarding covid-19 among undergraduate college students [1]studying in north-eastern states of India

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Abstract

Pneumonia of an unknown cause was first detected in Wuhan, China. In India, the first case of COVID-19 came to light on 30th January, 2020. As corona virus pandemic rapidly sweeps across the world, new measures such as quarantine were introduced to combat the

infection so it is important to assess the awareness regarding COVID-19 to face challenges and threats posed by the growing pandemic.

A non-experimental cross-sectional study was conducted using validated self-administered questionnaire through online mode among undergraduate college students studying in seven North-Eastern states of India excluding Arunachal Pradesh with 193 participants using consecutive sampling technique. The data collected from the subjects were analysed by using descriptive analysis (frequency, percentage) and inferential statistics (Fishers exact test).

The study revealed that out of 193 participants, 160(82.90%) participants have good awareness and 33(17.10%) participants have poor awareness regarding COVID-19 with majority of the participants (53.37%) choosing internet as the main source of information regarding COVID-19. The participants having the highest awareness are from Meghalaya (i.e., 16.58% participants) and lowest awareness from Tripura (i.e., 6.22% participants). The study also revealed that maximum awareness deficit existed in the area of general information category. The findings also showed that there is an association of awareness regarding COVID-19 with gender and stream of study of the participants.

The study concluded that maximum respondents have better understanding of awareness regarding COVID-19.

Keywords: Assessment, Awareness regarding COVID-19, College students.

Introduction

Background of the study

Pneumonia of an unknown cause was first detected in Wuhan. Subsequently, China reported it to the regional WHO office on the 31st December, 2019. The outbreak was declared a Public Health Emergency of International concern on 30th January, 2020. WHO announced a name for the new Corona Virus disease: COVID-19. It was found that older adults have a significantly increased risk of severe disease following infection from COVID-19. An increase in the number of countries affected by COVID-19 was reported (WHO, 2020)[1]. In India, the first case of COVID-19 came to light on 30th January 2020 and by April 2020, country officials had identified several areas of hotspots of COVID-19 infection in the country. After two months, the disease spread to almost all parts of the country (Arti M.K and et.al, India, 2020) [2].

According to Ministry of Health and Family Welfare and National Centre for Disease Control, the death toll in India due to COVID-19 rose to 4,971 and the number of cases climbed to 1, 73, 763 in India on May 30,2020. These are difficult times for us as we hear about the spread of COVID-19 all over the world, through television, social media, newspaper, family and friends and other sources. The most common emotion faced by all is fear, that can cause anxiety and panic, and can make us think, say or do things that we might not consider appropriate under normal circumstances (MoHFW, 2020) [3]. At present, there is no specific treatment for the novel Corona virus. However supportive care to the infected person is highly effective (WHO, 2020) [4].

Need of the study

The virus has affected more than 3 million people across the globe, and over 2.5 lakh people have succumbed to it (WHO, 2020) [1]. Global health experts and South Asian Governments expressed concern over the spread of COVID-19 and a potential for more than 7.6 million deaths in South Asia if no action was taken (Walker and et.al, 2020) [5]. Sri Lanka, India, Kenya and Nigeria which have low fatality rates today, could face

devastating waves of infection in the near future. (Kaushik B., Live mint, May 6, 2020) [6].

As the Corona virus pandemic rapidly sweeps across the world, it is inducing a considerable degree of fear, worry and concern in the population at large. In Public Mental health terms, the main psychological impact to date is elevated rates of stress or anxiety. In addition, new measures introduced to combat COVID-19 infection, such as quarantine, have affected people's usual activities, routines or livelihoods. These changes are expected to lead to increased levels of loneliness, depression, alcohol abuse or drug use and self-harm or suicidal behaviour. This pandemic is also a major threat to the economy of developing and under developed countries (WHO, 2020) [4]. In India, uncertainty amid the pandemic, bleak prospects and concern for family members are pushing many over the edge (suicide). (The Times of India, 16th May, 2020) [7].

Assessing the awareness of COVID-19 is essential to face challenges and threats posed by the pandemic. The Government can empower its citizens with the right information and preventive measures to be undertaken.

Objectives of the study

Primary objective

a) To assess the awareness regarding COVID-19 among college students.

Secondary objective

a) To find out association of awareness regarding COVID-19 with selected demographic variables.

Operational definitions

Assessment: It refers to technique of gathering and interpreting information from different sources.

Awareness regarding COVID-19: It refers to general understanding of individual on more specific knowledge on COVID-19.

College students: For this study, college students refers to students pursuing any type of undergraduate courses (professional or general course) after they have passed class 12 but have not graduated yet.

Methodology

Research approach: In this study, a quantitative research approach was finalized to assess the awareness regarding COVID-19 among college students.

Research design: In this study, validated self-administered questionnaire method was used through online mode to assess the awareness regarding COVID-19 among college students.

Study settings: A pilot study was conducted through online mode among undergraduate college students studying in Arunachal Pradesh.

A final study was conducted through online mode among undergraduate college students studying in different North Eastern states of India namely Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura.

Study population: In the pilot study, the population comprised of undergraduate college students studying in Arunachal Pradesh.

In the final study, the population comprised of undergraduate college students studying in seven North Eastern States of India namely Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura.

Sample size: The sample size calculation for the pilot study was 37 and for the final study was 193.

Sampling technique: consecutive sampling technique was used.

Data collection procedure

A pilot study was conducted from 1st February, 2021 to 6th February, 2021 through the online mode after obtaining formal permission from the concerned authority. Consent was taken from the participants for

participating in the study. The sample of the study was 37 college students studying in Arunachal Pradesh, India. Majority 24 (64.87%) of the participants had good awareness regarding COVID-19.

The final data collection was done from 26th April, 2021 to 1st May, 2021 through the online mode in the North-Eastern states of India (Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura) except Arunachal Pradesh. Permission was obtained from the principal of College of Nursing, NEIGRIHMS.

After obtaining permission, the study was conducted. Prior to the data collection, informed consent was taken from the participants to explain the procedure and the purpose of the study which also stated the confidentiality and anonymity of the results.

Thereafter, the participants were allowed to proceed with the semi-structured questionnaire and were given approximately 10-15 minutes to complete it.

Scoring of the tool

Section i: It consists of demographic characteristics and was not scored.

It consists of the awareness-based questionnaire to assess the level of awareness. It consists of 20 items given in such a way that for each correct response 1 mark is given. There is no negative marking for a negative response. The maximum score is 20 and the minimum score is 0.

Interpretation of score

Category	Range of score
Good	≥16
Poor	0-15

Maximum awareness score= 20

Analysis, interpretation and discussion

The data collected from the subjects were analysed by using descriptive statistics (frequency, percentage) and inferential statistics (Fisher's exact test). The data was presented in form of the tables and graphs as illustrated below.

Organization of findings

Data has been organized into three parts as adduced below:

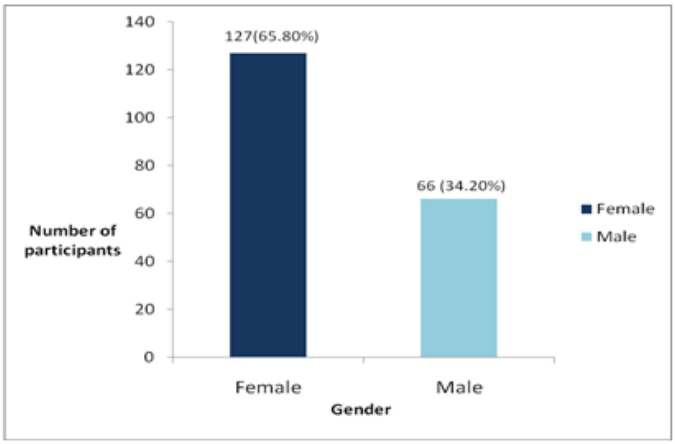
Section 1: Findings related to socio demographic characteristics of the participants.

Section 2: Findings related to awareness of the participants regarding COVID-19.

Section 3: Findings related to association of awareness regarding COVID-19 with selected demographic variables.

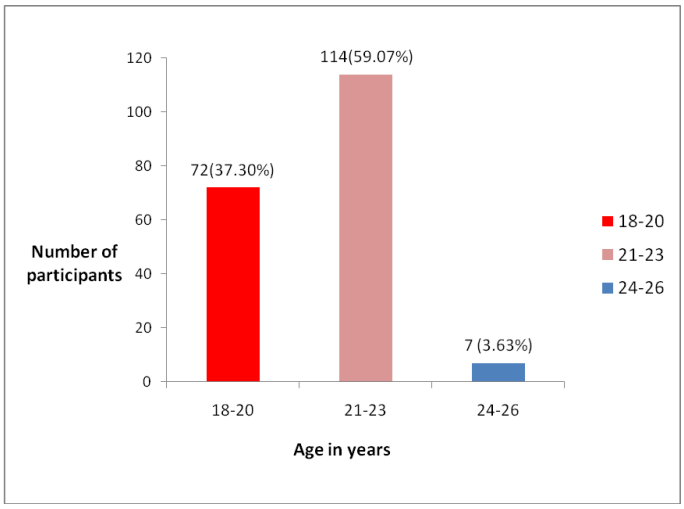
Findings related to socio demographic characteristics of the participants

Figure 1: Bar graph showing the distribution of the participants according to Gender n=193



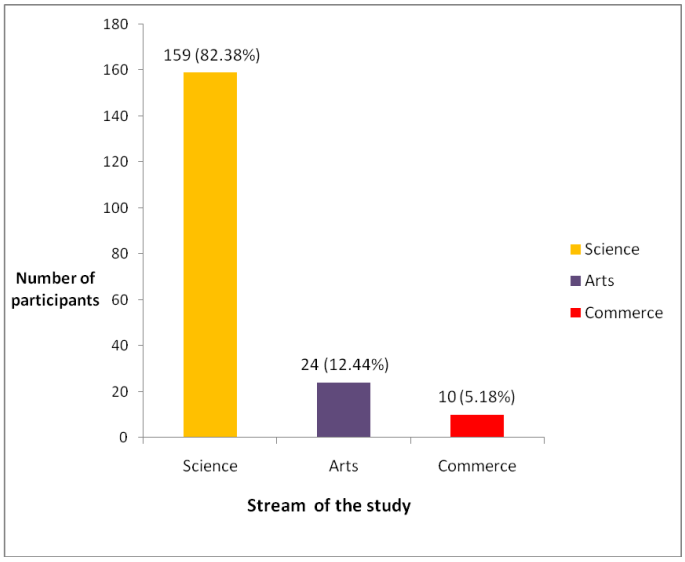
Data represented in Figure I shows that out of 193 participants, 66 (34.20%) participants were male and 127 (65.80%) were female.

Figure 2: Bar graph showing the distribution according to age of participants. n=193



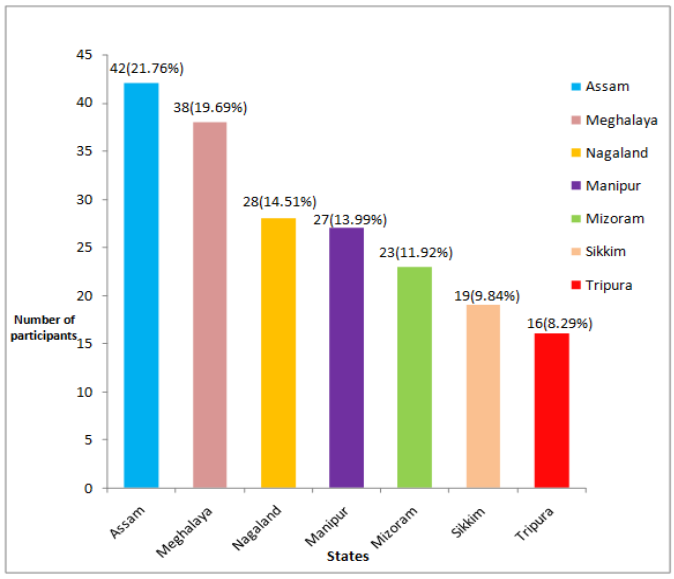
Data represented in Figure II shows that out of 193 participants, maximum i.e., 114 (59.07%) participants in the study belong to the age group of 21-23 years and minimum i.e., 7 (3.63%) participants belong to the age of 24-26 years.

Figure 3: Bar graph showing the distribution of different stream of study of the participants. n=193



Data represented in Figure III shows that out of 193 participants, maximum i.e., 159 (82.38%) participants belong to the Science stream and minimum i.e., 10 (5.18%) participants belong to the Commerce stream.

Figure 4: Bar graph showing the distribution of the participants studying in seven North-Eastern states of India. n=193



Data represented in figure IV, shows that out of 193 participants, maximum i.e., 42(21.76%) participants belong to Assam and minimum i.e., 16(8.29%) participants belong to Tripura.

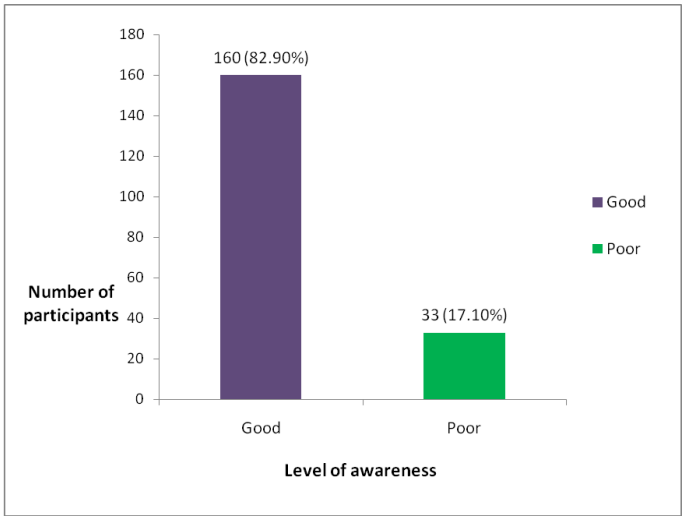
Section 2: Findings related to awareness of the participants regarding COVID-1.

Table 1: Frequency and percentage distribution of the participants according to source of information about COVID-19. n= 193

Sources of information	Frequency	Percentage
T. V	19	9.84%
Newspaper	13	6.74%
Health care professionals	48	24.87%
Internet	103	53.37%
Friends/Neighbours	10	5.18%

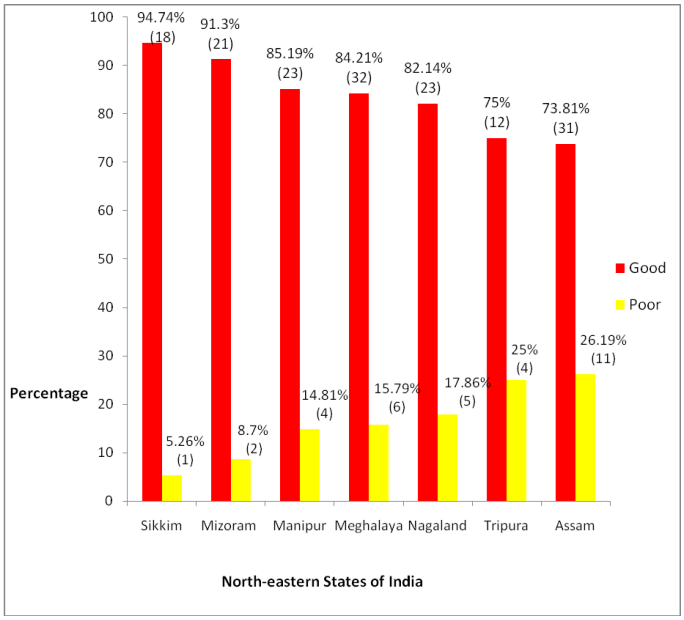
Data represented in Table 1 shows that out of 193 participants, maximum i.e. 103 (53.37%) participants had received information regarding COVID-19 from internet and 48(24.87%) had received information from health care professionals and minimum i.e. 10(5.18%) participants had received information from friends/neighbours.

Figure 5: Bar graph showing the level of awareness of the participants regarding COVID-19. n=193



Data presented in Figure V shows that out of 193 participants, maximum i.e., 160 (82.90%) participants had good awareness.

Figure 6: Bar graph showing the level of awareness of the participants studying in the seven North-Eastern States of India regarding COVID-19. n=193



Data presented in Figure VI shows that participants from selected seven North-Eastern states of India had good awareness regarding COVID-19, with highest i.e., 94.74% participants from Sikkim and lowest i.e., 73.81% from Assam.

Table 2: Area wise mean awareness scores obtained by the participants on the self-administered online questionnaires. n=193

Content areas	Number of items	Awareness score obtained (Grand total)	Mean awareness score
General information	2	283	141.5
Causes	2	380	190
Transmission	1	179	179
Risk factors	2	293	146.5
Symptom	2	320	160
Diagnosis	1	191	191
Prevention	10	1594	159.4

Data in table 2 shows the mean awareness score obtained by the participants in all seven areas. The data reveals that the lowest mean awareness score i.e., 141.5 was in the area of general information regarding COVID-19. This indicates that maximum awareness deficit existed in the area of general information category.

Table 3: Mean and Standard deviation of awareness score of the participants regarding COVID-19. n=193

Variable	Mean	SD
Awareness of the participants	16.78	1.76

Maximum possible score: 20

Data in Table 3 shows that the mean awareness score is 16.78 which is more than 75% of maximum possible score i.e., 15 which signifies that the subjects were having good awareness in terms of COVID-19.

Findings related to association of awareness regarding COVID-19 with selected demographic variables

Table 4: Association of awareness regarding COVID-19 with the age of the participants (in years)

n=193

Age in years	Awareness Score		Fisher's exact test value	P value/ exact significant	Tabulated value
	Good	Poor			
18-20 21-23 24-26	55 98 7	17 16 0	2.063	.115	1.20

*Significant at $P \leq 0.05$ level

The data in Table 4 shows that the calculated value 2.063 is more than the tabulated value 1.20 so there is no statistically significant association of awareness regarding COVID-19 with age of the participants. Therefore, the researcher concludes that awareness of the participants regarding COVID-19 is not dependent on age of the participants.

Table 5: Association of awareness regarding COVID-19 with gender of the participants. n=193

Gender	Awareness Score		Fisher's exact test value	P value/ exact significant	Tabulated value
	Good	Poor			
Male Female	45 115	21 12	3.905*	001	11.28

*Significant at $P \leq 0.05$ level

The data in Table 5 shows that the calculated value 3.905 is less than the tabulated value 11.28 so there is statistically significant association of awareness regarding COVID-19 with gender of the participants. Therefore, the researcher concludes that awareness of the participants regarding COVID-19 is dependent on gender of the participants.

Table 6: Association of awareness regarding COVID-19 with stream of study of the participants. n=193

Stream	Awareness Score		Fisher's exact test value	P value/ exact significant	Tabulated Value
	Good	Poor			
Arts Science Commerce	18 137 5	6 22 5	0.643*	.010	1.71

*Significant at $P \leq 0.05$ level

The data in Table 6 shows that the calculated value 0.643 is less than the tabulated value 1.71 so there is statistically significant association of awareness regarding COVID-19 with stream of study of the participants. Therefore, the researcher concludes that awareness of the participants regarding COVID-19 is dependent on stream of study of the participants.

Discussion

In this section the major findings of the present study have been discussed with references to results obtained by other investigators in the same aspect.

Section 1: Socio-demographic characteristics of the participants

- In this study, out of 193 participants maximum i.e., 114(59.07%) participants belonged to the age group 21-23 years, which is similar to study conducted by Sonam Maheshwari et.al (India), 2020 where out of the total participants i.e. 354 participants, 54.54% were from age group 21 to 23 years.

Section 2: Awareness regarding COVID-19

- In this study, out of 193 participants, maximum i.e. 82.90% participants had good awareness regarding COVID-19 which is similar to the study conducted by Abdur Rahman et.al (Bangladesh), 2020 among internet users where maximum i.e. 63.30% participants had good knowledge.
- The study findings also showed that there was awareness deficit in the area concerning the general information in regards to the action that are needed to be taken if symptoms are developed and the amount of alcohol content in the hand sanitizer.

Section 3: Association of awareness regarding COVID-19 with selected demographic variables

- In this study, there is association of awareness of the participants regarding COVID-19 with gender and stream of study of the participants.

Conclusion

From this study, it has been found that respondents have good awareness regarding COVID-19. In addition, participants from Sikkim have a better awareness compared to all other North-eastern states of India excluding Arunachal Pradesh.

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