



Practices, Attitudes and Knowledge of COVID-19 among the University Students of LCWU, Lahore

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Abstract: The primary goal of this study was to analyze COVID-19-related knowledge, attitudes, and practices among Lahore College for Women University students (LCWU). Methods: A cross-sectional study was carried out among LCWU students. Data was collected using a self-administered questionnaire and processed using a Google Form. The data was analyzed statistically. Results: The total number of responses received was 114. According to our research, 98 percent of respondents were familiar with COVID-19, with 51.8 percent receiving information via social media. 68.4 percent thought the virus was contagious, 95.60 percent thought it was spread by respiratory droplets, and 24.8 percent thought the elderly and children were at risk. 93.9 percent of participants were aware of social/physical distancing and believed that it could help to prevent infection, 95.5 percent believed that cough and fever could be signs and symptoms of COVID-19, and 106 (93 percent) claimed that staying at home could help to prevent the disease from spreading. Conclusion: It was observed that the majority of individuals were aware of COVID-19, with 90% of the population knowing about it. There is an ever-increasing need for COVID-19 knowledge among the local populace. It will assist in the prevention of COVID-19 transfer with minimal secondary transmission. Extensive survey studies are needed to offer supporting evidence in the development and implementation of public health policies related to the COVID-19 pandemic. It would help to regulate and stop the spread of COVID-19 across the country.

Keywords: Knowledge, Practices, Attitude, Pandemic, University students, COVID-19, Lahore.

1. INTRODUCTION

SARS-CoV-2 is a contagious and pathogenic coronavirus that emerged in late 2019 and has caused a pandemic of acute respiratory sickness known as “coronavirus disease 2019” (COVID-19), posing a hazard to human health and public safety. Coronavirus (COVID-19) is the greatest challenge that we have faced since World War II. It is a common virus that causes a range of diseases ranging from common colds to severe pneumonia. Coronavirus is a serious virus that attacks the human respiratory system. The four genera of coronaviruses are alpha, beta, delta, and gamma. Coronaviruses are large, enveloped, RNA viruses. Other known types of Coronaviruses include MERS-Coronavirus and SARS Coronavirus. The spread of COVID-19 has created many challenges among the lower-middle-income countries including Pakistan. It is a battle between myths and misconceptions [1]. The purpose of this study was to assess COVID-19

knowledge, characteristics, and habits among Pakistani citizens. It is vital to facilitate the control of this outbreak.

In just a few months it became a global pandemic. The first positive COVID-19 case was reported on February 26. To minimize Positive COVID-19 cases the Government of Punjab decided to close all educational institutes including schools, colleges, and universities as well as Deni Madaris [2]. All marriage halls were ordered to close, marriage ceremonies were suspended all private and public sports festivals were canceled. On March 27, the country was placed under complete lockdown. On March 27, it was projected that there were 13,328 COVID-19 cases across the country. [3].

COVID-19 infection has a 5-day incubation period. COVID-19 symptoms begin to appear two days after this period. The incubation period

is determined by the patient's immune system and age. COVID-19 infection can cause a variety of symptoms you must be consulted with your doctor whenever you feel these symptoms including fever, headache, diarrhea, fatigue, dry cough, sputum production, lymphopenia, haemoptysis, and dyspnea. Fever, a dry cough, and fatigue are the most prevalent symptoms [4]. Diarrhea, loss of taste and smell, a rash on the skin, a headache, and darkening of the fingers and toes are some of the less common symptoms. Shortness of breath, chest pain, and loss of speech or movement are all serious signs. If you have serious symptoms seek immediate medical attention.

2. MATERIALS AND METHODS

Following the announcement of town/city lockdowns, a questionnaire was created and distributed among students from various university departments to collect data. Because personal interaction for questionnaire distribution and the filling was not possible among university students, an online cross-sectional study was conducted to acquire the data. Based on the published literature, a self-administered questionnaire was designed. In this study, there was no requirement for an Urdu version of the questionnaire because English is the primary language of higher education in Pakistan [5]

Keeping in mind the latest COVID-19 experiments, a four-page form was created for sample collection. In addition, a questionnaire was created on Google Forms and then posted, with links spread across various social media channels (WhatsApp, Facebook, LinkedIn, Twitter, etc.). The authors have also enlisted the support of their trusted contacts to spread the word about this sample collection form to acquire more responses from students and staff. Participants who were sixteen years of age or older were assigned to the data collection based on their comprehension. Participants who were younger than sixteen were assigned to the data collection based on their understanding. Due to lockdown, the questionnaire was distributed online among staff, students to get the maximum sample size. There were no boundaries set up to allow for maximum data collecting across the region. Respondents had to respond either in no or yes or in some questions

if the participants were confused, they answered in sometimes or may be. Participants were sent to the sample collection instrument when the approval of voluntary participation was confirmed. The sample collection form was split into two sections. Name, age, gender, marital status, education, residence city/town, country, and the source from which they first learned about COVID-19 were all covered in the first section. The second category, which comprised numerous questions with yes, no, and may be options, basically encompassed knowledge, attribute, and practice analysis. Question 1 to 11 examined knowledge, whereas questions 12 to 17 measured population attitude. However, questions ranging from 18 to 26 were created to learn about the population's present practices.

Statistical Analysis:

SPSS (Version 24) was used to analyse the data. Categorical variables were represented by numbers and percentages. Wherever possible the independent chi square test was employed to establish significance, with a p value of < 0.05 being statistically significant.

3. RESULTS

Overall 114 responses were received. Table 1 depicts socio-demographic statistics. It was discovered that most of the population was between the ages of 21 and 25 observed years with 76 participants in this age group out of the entire sample size. The majority of the participants had an undergraduate degree. Females (96.50 %) were significantly more than males (3.50 %).

Tables 2, 3, and 4 describe the findings in terms of knowledge, attitude, and practices. In terms of demographics, the significant majority of the participants were between the ages of 21 to 25 years and the majority of them were females. According to our research, 98 persons (86 %) were aware of COVID-19, and the majority of them learned about the disease from social media 59 (51.80 %), rather than television 32 (28.10 %), relatives 18 (15.80 %), or other sources 4 (3.5 %). 78 (68.4 %) participants revealed their knowledge of the contagiousness of the virus and 109 (95.60 %) reported that the virus spreads by the respiratory droplet.

Table 1. Shows the Demographics of the Participants.

Characteristics	Response	No. of Participants
Age(years)	18-20	35 (30.75 %)
	21-25	76 (66.70 %)
	25-30	3 (35.95 %)
Sex	Female	110 (96.50 %)
	Male	4 (3.50 %)
Place of Residence	Rural (village)	23 (20.20 %)
	Urban (City)	91 (79.80 %)
Marital Status	Married	7 (6.10 %)
	Unmarried	107 (93.90 %)
Education	Matric	0.00 %
	Intermediate	3 (2.6 %)
	Undergraduate	85 (74.6 %)
	Graduation	25 (21.90 %)
	Staff	1 (0.9 %)
Nationality	Pakistani	100 %
	Non-Pakistani	0.00 %
Where did you first learn about Coronavirus?	Friends/Family/Relatives/Neighbor	18 (15.80 %)
	Social Media (Facebook, Twitter, Instagram)	59 (51.80 %)
	Newspaper	
	Television	1 (0.9 %)
	Other	32 (28.10 %)
		4 (3.5 %)

Table 2. Show Participant’s Answers to COVID-19 Knowledge-Based Questions

Questions	Yes	No
Have you ever heard about COVID-19?	98 (86 %)	16 (14 %)
Are you afraid of COVID-19?	80 (70.20 %)	34 (29.8 %)
Do symptoms appear in infected patients within 12-14 days?	102 (89.50 %)	12 (10.50 %)
COVID-19 could lead directly to death?	43 (37.70 %)	71 (62.30 %)
COVID-19 can be transmitted through cough droplets?	109 (95.60 %)	5 (4.4 %)
Are fever and cough among COVID-19's indications and symptoms?	110 (95.5 %)	4 (3.5 %)
Can COVID-19 be transmitted through a hand shake with others?	108 (94.7 %)	6 (5.3 %)
Do you know how COVID-19 appears and how it makes you feel?	111 (97.4 %)	3(2.6 %)

3.1 Knowledge

Table 2 shows the responses of the 114 study participants about their understanding of COVID-19. COVID-19 is well-known by the

vast majority of study participants. The majority of participants were feared by COVID 19. They know the appearance of COVID-19 symptoms, 102 (89.50 %) participants reported that in infected patients the symptoms appear in 12 to 14 days.

68.4 % of participants agree that COVID-19 was highly contagious, whereas 21.1 % had no idea about its spread, 10.5 % disagreed that it was a contagious disease. 81.60 % of participants reported that washing hands can help in the prevention of disease whereas 18.4 % reported that washing hands did not play role in the prevention of disease. Moreover, 37.70 % reported that COVID-19 could lead to direct death whereas 62.30 % reported that COVID-19 is curable by following SOPs. Furthermore, 95.60 % said it was spread through cough droplets, whereas 4.4 % said it was spread through other means.

Moreover, 95.5 % reported that fever and cough could be the signs and symptoms of COVID-19, 3.5 % thought fever and cough were not the signs and symptoms of COVID-19. Moreover, 94.7% reported that COVID-19 could be transmitted through a handshake with others whereas 5.3 % it cannot be transmitted through a handshake with others. Furthermore, 97.4 % were aware of the indications and symptoms of COVID-19, while 2.6 % were unaware. In knowledge-based question, the percentage shows that significantly 90 % of people were aware of COVID-19

3.2 Attitudes

Table 3 shows the participants' perspectives on COVID-19. According to 107 (93.9%) participants, those who come into contact with someone who has this infection should be isolated for 14 days as

an observational period., it may help to avoid the spread of disease. Whereas, 7 (6.1 %) participants were uncertain. 88 (77.2 %) participants were following the SOPs and listening to the direction of state and local authorities to decrease the risk of this disease. Whereas 22 (19.35) were uncertain and 4 (3.5 %) replied in negative. 106 (93 %) participants thought that staying at home can decrease the spread of this disease because staying at home minimizes the interaction with people and minimize the risk of infection. Whereas 1 (0.9 %) replied in negative and 7 (6.1 %) were uncertain about it. 111 (97.4 %) participants reported that positive patients should be quarantined themselves because it decreases the spread of disease. Whereas 2 (1.8 %) were uncertain about this and 1 (0.95 %) replied negatively. 107 (93.9 %) of the participants were aware that social/physical distance is beneficial in preventing infection and breaking the chain of disease transmission. Whereas 5 (4.4 %) were uncertain about this question and 2 (1.8 %) replied negatively. 92 (80.7 %) participants thought that closing all restaurants and fast-food joints will minimize the spread of COVID-19 because these points are gathering places where the risk of increase in cases is 10 times more. Whereas 17 (14.9 %) were uncertain about it and 5 (4.4 %) replied negatively.

3.3 Practices

The practices of participants towards COVID-19 showing in (Table 4). To minimize the spread

Table 3. Show Participant's Answers to COVID-19 Attitude-Based Questions

Questions	Yes	No	Sometimes
Are you listening and following the direction of state and local authorities?	88 (77.2 %)	4 (3.5 %)	22 (19.3 %)
Do you think isolating oneself, if get sick will help to avoid the spread?	107 (93.9 %)	0.00 %	7 (6.1 %)
Do you think staying at home minimize the risk of infection?	106 (93 %)	1 (0.9 %)	(6.1 %)
Do positive patient should be quarantined?	111 (97.4 %)	1 (0.9 %)	2 (1.8 %)
Do you think social distance should be done?	107 (93.9 %)	2 (1.8 %)	5 (4.4 %)
Do you think closing all restaurants and fast-food joints will minimize the spread of COVID-19?	92 (80.7 %)	5 (4.4 %)	17 (14.9 %)

Table 4. Shows the Participant’s Responses to COVID-19 Practice-Based Questions.

Questions	Yes	No	Sometimes
Do you avoid traveling to areas that are overcrowded?	89 (78.10 %)	4 (3.5 %)	1 (18.4 %)
Do you wear face mask in crowd?	108 (94.7 %)	0.00 %	6 (5.3 %)
Do you think by wearing face mask it can be controlled?	98 (86.00 %)	2 (1.8%)	14 (12.3%)
Do you wash your hands continuously?	81 (71.1 %)	3 (2.6 %)	30 (26.3 %)
When you sneeze or cough, do you cover your nose with your elbow or a tissue?	99 (86.8 %)	2 (1.8 %)	13 (11.4 %)
Have you been to visit any crowded places recently?	36 (31.6 %)	47 (41.2 %)	30 (26.3 %)
Do you avoid touching your face with contaminated hands?	76 (66.7 %)	6 (5.3 %)	32 (28.1 %)
Do you rapidly wash your hands with soap and water after coughing or sneezing?	71 (62.3 %)	9 (7.9 %)	34 (29.8 %)
Do you think face mask prevent viral transmission?	94 (83.2 %)	1 (0.9 %)	18 15.9 %)

of COVID-19 the people must follow the SOPs and maintain the social distancing. 89 (78.10 %) participants replied that they avoid going to crowded places because it increases the risk of cases. Whereas 21 (18.4 %) were uncertain and 4 (3.5 %) responded negatively. 108 (94.7 %) participants responded that they wear a mask whenever they visit crowded places. Whereas, 6 (5.3 %) were uncertain. 98 (86.0 %) participants thought that wearing a mask can be controlled because the transmission of the disease is cough droplets as they knew that. Whereas 14 (12.3 %) were uncertain and 2 (1.8 %) replied in negative. 81 (71.1 %) participants thought that disease can be prevented by washing their hands. Whereas 30 (26.3 %) were uncertain and 3 (2.6 %) replied negatively. When coughing or sneezing, 99 (86.8 %) participants said that covering your nose with a tissue or elbow prevents the COVID-19 virus from spreading further. Whereas 13 (11.4%) were uncertain about it and 2 (1.8 %) replied in negative. 36 (31.6 %) participants replied that in this pandemic they have visited crowded places. Whereas 30 (26.3 %) were uncertain about it and 47 (41.2%) replied in negative and 1 (0.9 %) that visited the crowded place was the hospital. 76 (66.0 %) participants replied that they to touch their faces with contaminated hands. Whereas. 32 (28.1 %) were uncertain and 6 (5.3 %)

replied in negative. 71 (62.3 %) participants replied that they used soaps and water immediately to wash their hands after coughing and sneezing. Whereas 34 (29.8 %) were uncertain about it and 9 (7.9 %) replied in negative. 94 (83.2 %) participants thought that face masks can prevent viral transmission. Whereas 18 (15.9 %) were uncertain and 1 (0.9 %) replied in negative.

4. DISCUSSION

This pandemic is spreading at a rapid pace, and we performed a survey to assess the current situation. The majority of the participants in this study are educated women. According to the current study, the community is well-informed and knowledgeable about COVID-19. To make people aware of the COVID-19 epidemic, news networks and social media have played an important role. This study, however, has some limitations. All of the 114 people who filled out this survey were either students or staff personnel. We were unable to contact regular people because the event was held during a lockdown, which prevented us from reaching out to them. Because physical interaction was impossible due to the lockdown, only literate people were able to fill out this form. Respondents had to be able to communicate in English,

participants had to create an account to access the questionnaire, and the sampling instrument could only be distributed through an online platform. Another study by Saqlain et al. adopted a similar method to acquire data [6].

The incubation period of COVID-19 infection is 2 to 14 days. The length of time it takes for an infection to develop is determined by the patient's immune system and age. COVID-19 infection can cause a variety of symptoms you must be consulted with your doctor whenever you feel these symptoms including fever, headache, diarrhoea, fatigue, dry cough, sputum production, lymphopenia, haemoptysis, and dyspnea. Fever, a dry cough, and exhaustion are the most typical symptoms. Diarrhoea, loss of taste and smell, a rash on the skin, a headache, and darkening of the fingers and toes are some of the less common symptoms. Shortness of breath, chest pain, and a loss of speech or movement are all serious signs. Fever, a dry cough, and exhaustion are the most typical symptoms. Diarrhoea, loss of taste and smell, a rash on the skin, a headache, and darkening of the fingers and toes are some of the less common symptoms. Shortness of breath, chest pain, and a loss of speech or movement are all serious signs. If you have serious symptoms seek immediate medical attention. There are many ways to protect yourself from COVID-19 by staying at home, wearing a mask, washing your hands, frequent intake of water, self-isolation, disinfecting your home. You should avoid visiting crowded places, maintain social distance, don't touch your face, avoid handshaking, avoid animals, avoid droplets and avoid traveling because COVID-19 spreads from person to person. The transmission of this virus is not yet understood how this easily happens.

Pakistan is bordered by both China and Iran. COVID-19's core lies in the northeastern part of Pakistan. Similarly, Iran is located in Pakistan's southeast, where the number of COVID-19 cases is rapidly increasing. The WHO's classification of COVID-19 as a pandemic compelled the government to take extraordinary measures to stop the virus from spreading further. To prevent the virus from spreading further, Pakistan implemented a tight screening mechanism at the Pakistani-Iranian border, as well as closing China's border [7]. In addition, the Pakistani Government-mandated

passenger screening before they were permitted to enter the nation. The diagnostic kits and primers were delivered to the Government by China and Japan, respectively. Pakistan's Federal Government established a plan called "The National Action Plan for The Corona Virus Disease (COVID-19) Pakistan" with the input of the Ministry of Health. The primary goal of this strategy was to figure out ways and tactics for dealing with the COVID-19 outbreak. With the assistance of Pakistan's armed forces, quarantine centers were built by the provincial government in Lahore and Karachi's exhibition centers. Traditional and social media efforts were undertaken around the country to raise public awareness of COVID-19.

Because there is no vaccine or recognized cure for COVID-19, the public must understand the individual measures (physical separation, adequate hand cleanliness, usage of a face mask, and respiratory etiquette) that will act as the disease's first line of defense. As a result, the current study was carried out to assess COVID-19 knowledge, attitudes, and prevention activities among LCWU Pakistani university students and other staff members. It was conducted through online social media platforms (WhatsApp, Instagram, Facebook, etc.) before and during the lockdown, and the authorities launched an intensive media effort to disseminate information about COVID-19. As a result, our findings may give basal information on disease knowledge among educated Pakistanis, as well as highlight preconceptions, myths, and misconduct associated with the condition. Our findings are expected to aid authorities in better planning awareness programmes to eliminate COVID-19-related myths and malpractices, potentially resulting in the disease being curtailed.

COVID-19, according to the majority of the population, is transmitted through respiratory droplets, can affect people of all ages, and elderly people are more likely to develop severe infections that can lead to death. This is because elderly people's immunity is lower than younger people's due to blood pressure, cardiovascular disease, and other factors. The public was well aware of the COVID-19 infection's signs and symptoms, which included dry cough, fever, exhaustion, and difficulty breathing [9-10]. Many survey participants were confused about whether COVID-19 infection can be

prevented and whether early supportive treatment and isolation of the infected patient can assist stop the spread of the virus. Many research has revealed that COVID-19 infection can be avoided in the general population and at the national level if correct procedures are implemented.

The use of quarantine or social separation to reduce the number of COVID-19 cases is beneficial. In the current situation, the administration determined that a countrywide lockdown would be the greatest choice for controlling the illness and declared it. Many people appreciate the decision and adhere to the lockdown, but there are still many who do not consider the health emergency to be serious [8]. These individuals are at a high risk of contracting COVID-19 and becoming a source of infection, which could obstruct progress toward the aim of infection control. According to the results of this poll, more than half of the respondents are well informed about COVID-19 as a pandemic. They know that maintaining social distance and quarantine themselves when they got positive tests can decrease the spread of this disease. The current survey also revealed that the general public is having difficulty obtaining basic requirements (food, rations, and so on). Furthermore, Pakistan is currently in the midst of an economic crisis, making it difficult to maintain the lockdown for an extended amount of time. Otherwise, people are expected to struggle to obtain essentials.

5. CONCLUSION

People are well aware of COVID-19, according to the current study that we conducted online; however, there is still a need for people to be aware of COVID-19 to limit disease spread. Instead of quarantining themselves, people should take preventative precautions to avoid becoming infected. People should, nevertheless, engage in healthful activities throughout the lockdown to maintain a mental and physical balance of health. The majority of the population in this study had knowledge of COVID-19 transmission, symptoms, and precautionary measures, and they are doing their best to follow SOPs.

6. ACKNOWLEDGMENTS

We are thankful to the participant that filled the online

questionnaire and help to complete this survey.

7. CONFLICT OF INTEREST

There is no potential for a conflict of interest.

8. ETHICAL CLEARANCE

Data was collected after the participants' agreement, and the participants' information was kept confidential.

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