

## Public awareness and preparedness towards Covid-19 pandemic in Pakistan

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**Objective:** To examine the level of public awareness towards the coronavirus pandemic and knowledge about its preparedness.

**Methodology:** In this cross-sectional study, a self-administrated online questionnaire was circulated through emails and social media. The questionnaire comprised of close ended questions regarding assessing awareness about the causes and symptoms of COVID-19 and knowledge about preventative measures required to be taken at individual and state level. A total of 350 participants responded to the survey in the given time period of six days from 13<sup>th</sup> to 19<sup>th</sup> March 2020. The participants belonged to all provinces of Pakistan including Azad Jammu Kashmir and

Islamabad.

**Results:** Public was aware of the COVID-19 epidemiological breakout, its causes, symptoms, modes of transmission and preparedness mechanism. The correlation matrix also depicted that public awareness about the danger of COVID-19 were significantly correlated with the preparedness at the individual and state levels.

**Conclusion:** The general public was well aware of the COVID-19 epidemiological breakout, its causes, symptoms, modes of transmission and preparedness mechanism. (Rawal Med J 202;45:502-506).

**Keywords:** Covid-19, pandemic, preparedness.

## INTRODUCTION

The declaration of a group of pneumonia instances of obscure etiology in China's prime city of Wuhan, was made in Decemebr-2019.<sup>1,2</sup> Cases in the underlying group announced a typical introduction—a fish showcase in Wuhan where wild creatures were served at a café-demonstrating that a point-source zoonotic (animal-to-human) course was likely the fundamental method of transmission for those cases.<sup>2</sup> A progressing flare-up of novel corona-virus/ COVID-19 pneumonia after hitting Wuhan city arrived at different territories/ areas of China and multiple countries. In next few days, the cases were likewise revealed in Thailand, Japan, the Republic of Korea, Hong Kong, Taiwan, and the United States.<sup>3</sup>

Presently, the virus has affected 194 countries and territories around the world with a total of 423,681 confirmed cases and a death toll of 18,922 deaths.<sup>4</sup> On 25<sup>th</sup> February 2020, Pakistan detected first two

cases of novel corona-virus and till March 25th, 20 the number of confirmed cases has been surged to 1,000 with seven deaths. Despite taking proactive measures by the Government, the number of confirmed cases has been reported to 1000 and is rising rapidly.<sup>5</sup>

What makes the situation most dangerous is the fact that it can be spread by persons who do not show any symptoms. So a person sitting next to you or travelling with you may appear perfectly normal with no symptoms, but he may be infected and able to spread the disease. This makes it hard to prevent its spread, except by mass isolation and close down, which is practically difficult.<sup>6</sup> There is a solid inclination toward defensive conduct and the consciousness of an illness episode can bring the contamination pace of infection down altogether.<sup>7</sup>

Learning the lessons from China and other affected countries, the Government of Pakistan responded

proactively and launched a comprehensive awareness campaign regarding COVID-19 epidemiological breakout, its causes, symptoms, modes of transmission and precautionary measures. The Government persuaded the public to face the situation rather to be panic. Hence, the objective of this is to examine the level of public awareness toward the Corona-virus pandemic and knowledge about its preparedness.

## METHODOLOGY

For this cross-sectional study design, a self-administered online questionnaire was used to conduct a survey from the general public about awareness concerning Corona-virus and its preventive measures. The data was collected in six days from 13<sup>th</sup> to 19<sup>th</sup> March, 2020. An online survey was posted on social media websites and emails. A total of 350 participants with a range of age group of 18 to 65 years old of both gender from all provinces of Pakistan including AJK and federal area responded to the survey.

**Statistical Analysis:** The data were analyzed by using SPSS version 20. Bivariate analysis correlation matrix was deployed to explore the association between different research variables. The normality assumption of the data was performed to apply a parametric statistical test of correlation.

## RESULTS

Table 1 demonstrates the demographic characteristics of the respondents. About 30% female and 70% male respondents participated in the study. About 86% respondents were quite young within the age group of 18-35 years. Similarly, 96% respondents were highly qualified having university level degree. One of the possible reasons for receiving maximum responses from young and highly educated persons may be the "familiarity and access to IT", as this survey was conducted online. Table 2 showed the responses about public awareness i.e. knowledge, modes of transmission, symptoms of disease and;

preparedness or preventive measures regarding COVID-19.

**Table 1. Frequency and Percentage distribution of Demographic Characteristics of the Respondents.**

Characteristics	Male (N=103)		Female (N=247)		Total (N=350)	
	F	%	F	%	F	%
Age						
Less than 18	2	2.0	2	1.0	4	1.1
18-25	35	34.0	132	53.0	167	47.7
26-35	50	48.5	85	34.0	135	38.5
36-45	14	13.5	20	9.0	34	9.7
46-55	1	1.0	5	2.0	6	1.7
56-65	0	0.0	3	1.0	3	1.0
Above 65	1	1.0	0	1.0	1	1.0
Education						
Up to secondary	0	0.0	3	1.2	3	0.8
Higher Secondary	3	2.9	7	2.8	10	2.8
University	55	53.3	184	74.4	239	68.2
Higher Studies	45	43.6	53	21.4	98	28.0
Marital Status						
Single	61	59.2	171	69.2	232	66.2
Married	42	40.7	76	30.7	118	33.7
Employment Status						
Unemployed	27	26.2	161	65.1	188	53.7
Government Job	39	37.8	39	15.7	78	22.2
Private Job	35	33.9	47	19.0	82	23.4
Retired	2	1.9	0	0.0	2	0.5

**Table 2. Percentage distribution of Public awareness and preparedness regarding COVID-19.**

Statement	Yes (%)	No (%)	Not Sure (%)
<b>Knowledge/ Awareness about COVID 19</b>			
It is a virus	87.0	10.0	3.0
Immunodeficiency	59.7	22.6	17.7
Inherited disease	9.7	80.6	9.7
Infectious and can spread from person to person	93.4	4.3	2.3
The incubation period is 2–4 weeks	69.4	10.3	20.3
Could be fatal	79.1	7.4	13.4
<b>Transmission of COVID-19</b>			
Through Droplets after sneezing	91.7	3.7	4.6
Touching/ shaking hands with an infected person	94.6	2.6	2.9
The use of objects used by an infected person	91.4	6.0	2.6
Patients with chronic diseases are at a higher risk	82.6	7.4	10
Transmittable through Health care workers	47.1	26.0	26.9
Transmittable from human to animals/ vice versa	50	26.6	23.5
<b>Symptoms of COVID-19</b>			
Fever	91.4	4.1	3.7
Flu	93.7	5.1	1.1
Cough	95.1	3.4	1.4
Pain or pressure in Chest	65.1	18.6	16.3
Feeling Cold	63.1	18.6	18.3
Shortness of breath	92.3	3.4	4.3
Diarrhea is a possible symptom	22.6	47.4	30.0
<b>Preparedness for COVID-19</b>			
COVID-19 vaccine is available in markets	3.1	79.1	17.7
Antibiotics are the first-line treatment	21.7	49.4	28.9
Washing hands with soap as prevention	98.9	1.1	0
Use of face masks in crowded areas	95.7	1.7	2.6
Taking plenty of water	90.0	3.4	6.6
Adopting hygienic practices	94.0	1.0	5.1
Staying Inside home	90.3	4.0	5.7
Covering nose & mouth when coughing or sneezing	96.0	2.3	1.7
Avoid visiting public places	97.0	1.0	2.3
Exposure to Sunlight	98.0	1.0	1.4
Restrict travel from and to the areas of the disease	66.3	16.0	17.7
Isolate infected patients in special hospitals	97.7	0.3	2.0

**Table 3. Mean, Standard Deviation and Skewness of the study variables (Awareness, Transmission, Symptoms, Preparedness (N=30)).**

	Minimum	Maximum	Mean	Std. Deviation	Skewness	Std. Error
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic
Awareness	6.00	18.00	8.6771	2.09551	1.461	.130
Transmission	6.00	16.00	8.1286	2.08365	1.256	.130
Symptoms	7.00	21.00	9.5171	2.24272	1.444	.130
Preventive measures	14.00	38.00	17.6143	3.18617	3.679	.130

**Table 4. Correlation among Public Knowledge about transmission, symptoms and preventive measures.**

<b>Correlation</b>				
	Knowledge	Transmission	Symptoms	Preventive measures
Knowledge	1	.410**	.325**	.236**
	350	.000	.000	.000
	350	350	350	350
transmission	.410**	1	.531**	.396**
	.000		.000	.000
	350	350	350	350
Symptoms	.325**	.531**	1	.413**
	.000	.000		.000
	350	350	350	350
preventive measures	.236**	.396**	.413**	1
	.000	.000	.000	
	350	350	350	350

Table 3 reflected the general public was aware of the spread of Corona-virus, its causes, transmission, symptoms and preventive measure need to be taken by the individual and state.

Table 4 explain the correlation matrix illustrated a significant and strong correlation between knowledge of the cause of COVID-19 with the knowledge of its transmission, symptoms and preventive measure required to adopt at the individual and national levels.

## DISCUSSION

COVID-19 is a new genre of corona-viruses family that had not been identified in humans before this.<sup>8</sup> In Pakistan, it is also a new theme thus no previous literature or studies were available to support the findings of the study. Travelers coming from China were carefully screened, and flights were reduced to limit mobility as a precautionary measure.<sup>9</sup> From Iran thousands of pilgrims' travellers came from the holy cities of Mashhad and Qom, via air and land.<sup>10</sup>

When Corona virus attacked in China, nobody knew what to do but when cases reported in Pakistan; there were lots of lessons to be learned. By following the footsteps of the infected nations, Pakistan Government dealt the situation proactively by taking all recommended precautions. Quarantines were established, scanning was started at airports and other entry points and above all, a comprehensive awareness campaign was launched through mass media. The Government pledged to fight the corona-virus and warned the nation of a possible spread of the virus in the country. The WHO also acknowledged that Pakistan has still no case but is actively preparing in case this new virus is imported.<sup>11</sup> While addressing the media in Karachi, the Country Head of the WHO, *Dr Palitha Gunarathna Mahipala* stated:

*"...At a time when other countries were reporting cases, Pakistan was keeping the virus at bay, which is something quite praiseworthy. Pakistan has come up with the one of world's best 'national response programmes' against Covid-19 pandemic..."<sup>12</sup>*

Our findings also confirmed that the respondents were aware regarding corona-virus, its symptoms and preventive measures to combat. The majority of the respondents were sensitized that a "virus" is the underlying cause of this pandemic. With regard to the knowledge about transmission of COVID-19, data confirmed that majority of the respondents had maximum knowledge, in this regard. The respondents were also well aware of the symptoms of the disease as more than 90% of the respondents knew that fever; cough, flue and shortness of breath are the major symptoms.

The responses recorded were found closely associated with the symptoms indicated by the Ministry of Health, Government of Pakistan.<sup>13</sup> The correlation matrix also depicted that public awareness about the danger of COVID-19 were significantly correlated with the preparedness at the individual and state levels. These findings were also in line with the precautionary advisory issued by the WHO and UNICEF.<sup>14</sup> A research study claimed that Pakistan with its limited resources promptly responded and restricted the spread of COVID-19 to the big extent.<sup>15</sup>

It is fact that the preparedness mechanism by the

government largely depends on public awareness and cooperation to implement the preventative measures efficiently. Having knowledge regarding precautionary measures and; implementation of those precautions are co-dependent. The results confirmed that government has played its role of creating awareness among public, now it is the responsibility of the people to adopt preventive measures to combat the pandemic. Our study has laid the foundation for further research across culture. The study was limited to only those respondents who had access to online surveys.

## CONCLUSION

The general public is well aware of the COVID-19 epidemiological breakout, its causes, symptoms, modes of transmission and preparedness mechanism. Government and mass media has played its role efficiently to create awareness among general public and enable them to counteract the pandemic and curtailing human loss. It is the public obligation to adopt preventive measures to combat the pandemic.

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